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ABSTRACT

The two volume report presents the final report and appendixes of a project concerned with developing career opportunities for handicapped persons. Entitled "A Career Accessibility Model for Special Needs Individuals," the project's approach was based on the application of job redesign and job enrichment principles within ten national or multiregional firms for the purpose of determining employment opportunities for educable mentally retarded persons. An operational model was developed, analyzed, and refined, producing 38 career options suitable for the target population. The documented approach was found to be an alternative to job development for special needs persons, and the work with employers was found to have a positive impact on their attitudes toward providing career access for the handicapped. The model was field implemented in four schools in Massachusetts and two in New Jersey, and the demonstration approach yielded much supporting evidence that the various conceptual aspects of the model (generic job development, local job development, related instruction, parent communication, placement, and followup) were important ingredients in a comprehensive career preparation and implementation strategy for handicapped persons. As a result of the implementation of the Career Accessibility Model, several special needs students were placed in cooperative work experiences previously not considered. One school system adopted the Career Accessibility Model as a comprehensive approach to career preparation for its handicapped students. Appendixes include samples of information generation, examples of development of composite job descriptions, samples of new job options, and various other reports and forms. (Author/DLS)

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Final Report

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A Career Accessibility Model for Special Needs Individuals

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Office of Education
Bureau of Education for the Handicapped

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ABSTRACT

A Career Accessibility Model for Special Needs Individuals was a project concerned with developing career opportunities for handicapped persons. The approach was based on the unique application of job redesign and job enrichment principles within ten national or multi-regional firms for the purpose of determining employment opportunities for educable mentally retarded persons (EMR's).

An operational model was developed, analyzed, and refined, producing thirty-eight career options suitable for the target population. The documented approach was found to be an alternative to job development for special needs persons, which satisfies many of the affirmative action requirements contained in Section 504 of the Vocational Rehabilitaion Act of 1973. In addition to the development of potential options for handicapped persons, the work with employers was found to have a positive impact on their attitudes toward providing career access for handicapped workers in their organizations, a commitment which has extended beyond the duration of the project funding period.

The model was field implemented in four schools in Massachusetts and two in New Jersey. This demonstration approach yielded much supporting evidence that the various conceptual aspects of the model (Generic Job Development, Local Job Development, Related Instruction, Parent Communication, and Placement and Follow-Up) were important ingredients in a comprehensive career preparation and implementation strategy for handicapped persons. As a result of the implementation of the Career Accessibility Model several special needs students were placed in cooperative work experiences previously

not considered. One school system adopted the Career Accessibility Model as a comprehensive approach to career preparation for its handicapped students.

The model has been described, documented, and is ready for use and further research, which will bring the field closer to a viable solution to improving career development for handicapped persons.

Chapter I. Introduction

"A Career Accessibility Model for Special Needs Individuals" has been a twenty-four (24) month developmental research project concerned with the following:

A. Problem

The purpose of the Career Accessibility Model (CAM) project was: (1) to develop career opportunities for handicapped persons through a systematic process of job identification and development; and (2) to produce specific occupational information which would impact positively on school systems' efforts in career education for the handicapped.

B. Background

The project was created out of four perspectives garnered from previous experiences by the staff at the Institute for Career Research. These views led the way toward the scope and design of the Career Accessibility Model (CAM).

1. Work in task analysis, in projects such as Computer Assisted Research for Educational Relevance (Project CAREER), showed us that specific job breakdowns in the form of task statements were useful communications tools for educators in dealing with employers. The job breakdowns form an objective vehicle using common terminology to describe specific employment settings and prescribe necessary training components.

2. Experience in cooperative education has proven that the work environment is an excellent teaching environment. Cooperative education has the

best record of any vocationally oriented program for student placement and adjustment. Additionally, the affective variables of the work environment are most easily demonstrated on the job. Relevance of instruction is enhanced through a process in which the trainee is immersed in the work environment under instructional supervision.

3. Recent work with the handicapped and disadvantaged in vocational and career programming has pointed out the need for effective career preparation through a more direct link between work and education. The reduction of the distance between education and work, accomplished through a realization of common goals by both educators and employers, has proven to be a route toward better programming and more effective job placement.

4. Work with employers and handicapped persons brought us to the realization that more career opportunities were needed if the handicapped were to reach a broader potential in the work place. The conviction held by the project staff was that not only could the person being prepared for work be trained toward filling somewhat limited existing jobs, but that jobs themselves could be manipulated to fit the capabilities of our handicapped students.

These perspectives led to two research questions addressed in the project: (1) Could career opportunities for handicapped persons be developed in a systematic way (a Model)? and (2) Would the information produced by such a process impact on school systems' efforts in career education for the handicapped?

C. Goals

The above decisions precipitated two general goals for the Career Accessibility Model (CAM) Project:

1. To develop and implement a systematic job development process in 10 companies with national markets in the marketing and distribution cluster.
2. To pilot test the utilization of job development information produced by the CAM Model with EMR populations in a variety of school settings in Massachusetts and New Jersey.

D. Scope of Project

In determining the companies which would be contacted, project staff applied the followingccriteria:

1. Employer should have a "national market" in the Marketing and Distribution cluster.
2. Employer should be able to demonstrate a projection of continued employment in selected occupations.
3. Employer must be willing to cooperate with required activities of a federal research project.

The following companies were chosen:

1. American Airlines, Inc.
2. Brigham's
3. Burger King
4. Consumer Value Stores
5. The Gorton Corporation
6. Marriott Motor Hotels, Inc.
7. Marshall's, Inc.

8. McDonalds, Inc.
9. S. D. Warren Company (Division of Scott Paper)
10. Stop & Shop Companies
11. Texaco, Inc.
12. F. W. Woolworth
13. Zayre Corporation

Project contacts within those companies were identified by the following criteria:

1. Contact should have some responsibility for establishing job classifications.
2. Contact should have some responsibility for affecting company hiring policy.
3. Contact should have an expressed interest in cooperating with a federal research project.
4. Contact should have authority to assign information requests to subordinates.

The handicapped population for the project was mildly retarded (EMR) students in the following schools.

1. Suburban/Small Town Comprehensive High School - Holbrook High School, Holbrook, Massachusetts.
2. Large Rural/Suburban Regional Comprehensive High School - King Philip Regional School, Wrentham, Massachusetts.
3. Large Vocational/Technical High School - Minuteman Regional, Lexington, Massachusetts.
4. Large Urban/Suburban Comprehensive High School - Newton North High School, Newton, Massachusetts.
5. Shared Time Vocational Technical High Schools - Union County Vocational-Technical School, Scotch Plains, New Jersey and Monmouth County Vocational School, Freehold, New Jersey.

E. Review of Literature

The Career Accessibility Model developed from theories and research findings in the areas of Mental Retardation, Cooperative Education, Social and Occupational Adjustment, Career Education, Human Resource Management, Job Redesign, and Job Enrichment. In the interest of clarity the reader is directed to Appendix A of this report for an extensive review of the literature in these areas which formed the foundation for our work.

F. Assumptions

The conceptualization of the Career Accessibility Model Project was guided by several assumptions which we, as researchers, believe in and which guided our decisions related to the direction of the project operations. These are listed below to provide the reader with a framework for understanding the CAM methodology:

1. People with special needs represent a wealth of human potential which has yet to be fully developed.
2. The attitudes of American society (as measured by the Vocational Rehabilitation Act of 1973, Public Law 94-142, Massachusetts Chapter 766, and numerous formal policies for affirmative action in large companies) are becoming favorable toward providing assistance to citizens with special needs.
3. Businesses and education share common interests, albeit different goals, in developing human resources to their fullest.
4. Cooperative education programs provide supportive transitions into the world of work for persons with special needs.

5. To be successful the Career Accessibility Model must provide dynamic process by which: (1) the many variables represented in relevant employment data can be generated continuously into the school curriculum, and (2) special needs students can be prepared for, and placed in the world of work through the use of this information.

6. Job redesign is a viable approach to creating jobs for people with special needs. It is a method through which organizations can change to accommodate their skills and capabilities.

This set of assumptions has underscored the development of a model which, through the use of information common to both, enhances communication between educators and employers. The data is comprehensive enough to consider the variety of concerns related to a satisfying career. The approach molds jobs to people while accomplishing employer goals. Finally, information generated fuels a complete curriculum, which provides greater access to a range of career options for handicapped persons.

Chapter II. Methods

A. General

The methods used to accomplish the objectives of the project may be broken into two areas: Generic Job Development and Field Implementation. These two approaches were documented, analyzed and resulted in the construction of the Career Accessibility Model (Figure 1).

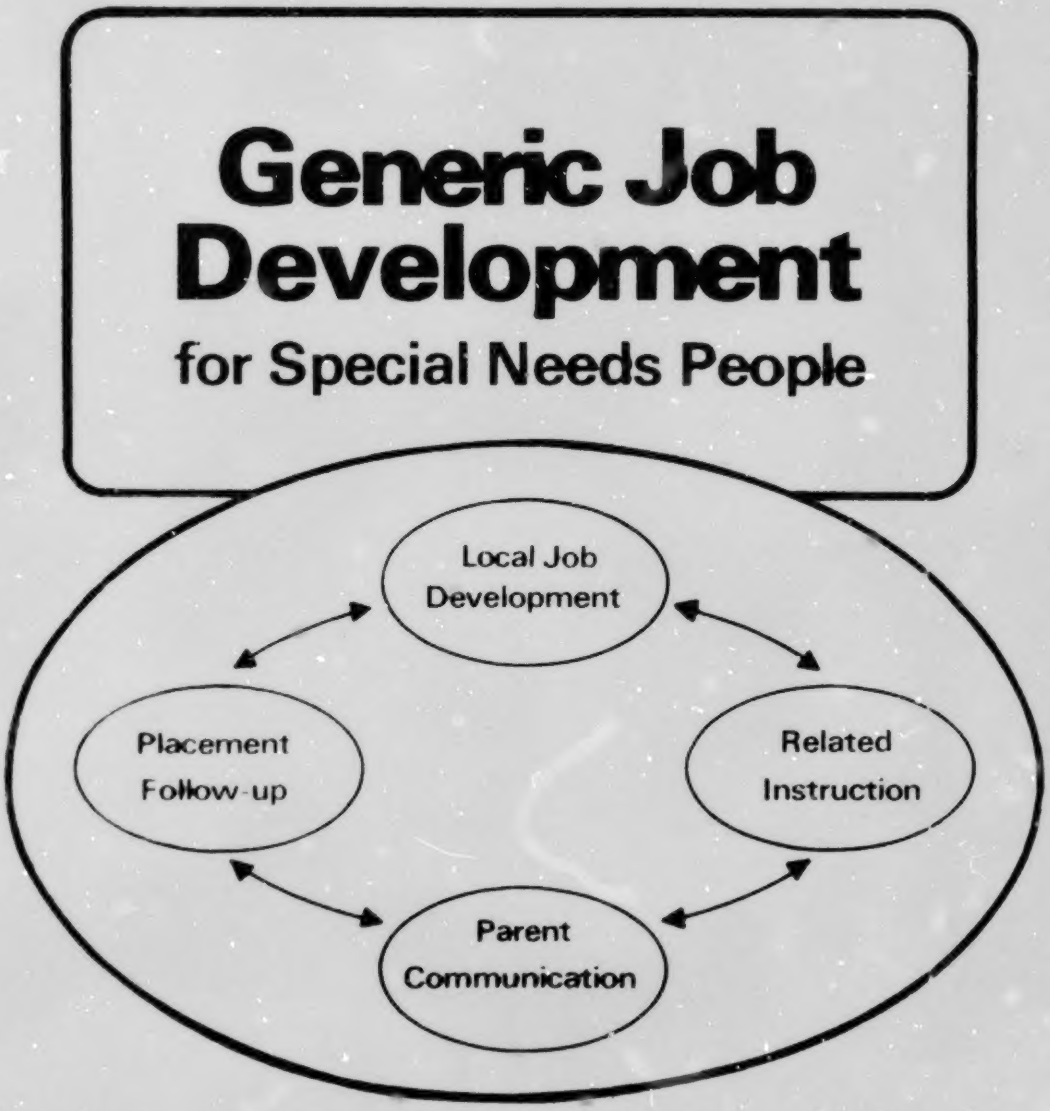
Generic Job Development
for Special Needs People
Local Job Development
Placement Follow-up
Related Instruction
Parent Communication

Figure 1.

B. Generic Job Development

Generic job development is the process developed in this project for approaching employers for the purpose of identifying and/or redesigning occupations for the specific employment of handicapped persons. The research approach is a combination of structured interviews, data collection, data verification, and negotiations, which result in the development of job options, in this case, for mentally retarded persons.

1. Concepts: Several concepts ran through this segment of the project activities. First the research impacts on employers and work itself. We observed that the employers' attitudes toward employing handicapped persons were altered as they engaged in the job redesign activities. In many cases tasks were combined from one or more existing jobs to create a new position; in other cases certain tasks which were inappropriate for educable mentally retarded persons were deleted making an existing job viable for this population. These actions affected the nature of the work in the various business organizations.

   Another important concept was that the company interaction should be aimed at upper level managers for the purpose of gaining organizational support. The key contacts within the organizations used in this project were persons responsible for personnel. These persons were high enough in the organizations to assume responsibility for hiring and job descriptions, and to have some influence on policy. They were also close enough to operations to know the details of the work environment and the work itself. In most cases the persons who fit such criteria were company divisional or corporate level personnel managers.

A third area of importance was that concepts of job redesign are derived from business management theories of job enrichment. Our operational definition of the job redesign approach fits the organization to people. This definition incorporated a positive view of worker's growth needs, which, if met, benefits the organization in terms of accomplishing its goals. Operationally this meant a planned, systematic approach involving detailed analysis of workers needs and abilities in regard to social/technical aspects of the organization. From that point existent jobs were broken down into their component tasks and reconstructed to fit the needs and abilities of the worker. The outcome of such activities benefit both the company, through efficient utilization of the potential work force, and the individuals who gain viable employment in situations which previously did not exist.

Finally, the concept of broadened application of the generic job development process became apparent during our work. A profile of the educable mentally retarded target population of this research indicated: (1) a slow learner with low cognitive functioning and general difficulties in social adaptation; (2) can be placed with appropriate training, guidance, supervision, and a suitable employment option; (3) and has potential as a capable, productive worker characterized by low absenteeism and low incidence of turnover. The process of job redesign can be applied using other variables which characterize any handicapping condition.

2. The Procedure: The generic job development process consisted of two to three face-to-face sessions with the contact people described above. These structured interviews and negotiating sessions were documented and analyzed in the process of generating job development information and a process model for creating employment options for handicapped persons.

Verification of resulting job options and the analysis of EMR capabilities was accomplished through the use of a task force, which met on a regular basis during the first twelve months of the project. This task force, listed below, included special educators, vocational/career educators, employers, and rehabilitation specialists:

Richard Lee
Special Needs Department
Minuteman Vocational-
Technical School
Lexington, Massachusetts

Ramberto Toruella
Director of Personnel
Marriott Motor Hotel
Newton, Massachusetts

Patricia Linari
Director of Special Education
Holbrook Public Schools
Holbrook, Massachusetts

Mary Scorzelli, Ph.D.
Consultant in Retardation
Newton, Massachusetts

Mary McLean
Massachusetts Rehabilitation Commission
Boston, Massachusetts

Ronald Partridge
Division Personnel Manager
S. D. Warren Division
Scott Paper Company
Boston, Massachusetts

Dan Malia
Director, Vocational-Technical Education
Newton Public Schools
Newton, Massachusetts

A final analysis of the negotiated career options from each company was performed by the project staff. The purpose of this phase was to organize all of the data collected and prepare it for use in field implementation. A national advisory committee was established (listed below) to assist in the overall management of the project, and give specific inputs relative to the outcomes and procedures of each phase of the project.

Mr. Mel Appell
Dr. Gary Bice
Dr. Steve A. Brannan
Dr. Donn Brolin
Dr. Pat Cegalka
Dr. Henry Colella
Dr. David Compton
Mr. John Gleason
Dr. Norman Gysbers
Mr. William P. Hoey
Dr. Marc Hull
Dr. Oliver P. Kolstoe
Dr. Betty Ross-Thomson
Dr. Robert Stodden
Dr. Dennis Vinton

The generic job development process consisted of five (5) phases, which are described below. These systematic steps constitute a process which begins at initial contact and orientation and moves toward the generation of the following sets of information:

a. Company contacts.

b. Employer data.

c. Job descriptions.

d. Career development charts.

e. Social employability factors.

(An example of these data may be found in Appendix B)

Phase one (1) of the process was a meeting held with the employer contact (upper management) for the purpose of articulating project goals with company needs. Appendix C contains a copy of the orientation materials used in this activity. The project staff detailed background and need for the project, and the methodology to be employed to reach the project goals. Company policies and operations were explored as they related to current social trends and affirmative actions. The outcome of this interaction was designed to bring the employer and project staff toward understanding their parallel mission of developing human resource potential.

Phase two (2) began either in the first meeting, a follow-up meeting, or mailing depending on the employer's availability to proceed and on time constraints. The purpose of this phase was to delineate the work setting and analyze the work requirements. Materials used in this process were task outlines and the General Employability Questionnaire (see Appendix B).

The project staff person and employer used the task statements as descriptive tools in reaching mutual understanding of specific job requirements in the work setting, and began to discuss ways in which tasks could be regrouped to more effectively meet both human potential and organizational goals. During this period personnel management problems were surfaced and possible solutions through job redesign discussed. The employer begans at this point to see the use of a systematic approach based on specifically delineated information as an asset for resolving employment and affirmative action issues. In each case there were several specific job descriptions developed from the task outline data. Occupational adjustment information was collected as responses to the General Employability Questionnaire. The project staff person also collected data about the organization, where the specific jobs fit in the personnel structure, and what positions would constitute next steps in a persons career development.

In phase three these data were then organized into composite job descriptions which were: (1) verified by the employer as potential employment positions within the organization; and (2) had the potential of being accomplished by educable mentally retarded persons. (Examples in Appendix D.) This was accomplished through a process of analysis of the job data and work setting information against known characteristics of educable mentally retarded persons. The analysis was conducted by the project staff using inputs from experts in mental retardation, the literature base, and selected research output from students of EMR functioning in a work setting. The purpose of the activity was to establish a probability that the jobs designed in the previous phases could be accomplished by mentally retarded persons.

A second level of analysis in this phase determined where the redesigned job fit in the organization, and the relationship of the redesigned job to other jobs in the work setting. Data gathered from the interviews, as well as information on job adjustment were used to predict the viability of any given job, as well as the process of establishing the position within the company.

Phase four (4) was a reporting back and negotiating function, which again involved face-to-face interaction with the employer (upper level management). The purpose of this phase was to resolve issues of how the results of project analysis fit the employers' concepts of specific jobs. During these negotiations further redesign took place which integrated the task force inputs. At this point, positions could be further combined, split or added to for the purpose of establishing jobs which fit the individual (in this case EMR's).

The employer was encouraged to explore redesign alternatives and provide inputs about the nature and availability of the job options developed in the process. The purpose here was to gain employer acceptance of the specified employment possibilities as well as to discuss joint analysis of the work setting. This activity served not only to finalize the new job options within the company but also to lead the employer toward acceptance of the mentally retarded individuals who will be prepared for the position.

The final phase (5) of the generic job development process was to prepare the data gained in the previous phases for use by school personnel. This involved summary of the data generated, review by a task force, and the acquisition of employer commitments to work with specific school programs through their local installations.

The purpose of this step is to analyze, from an education and training point of view, the ability of the EMR person to be trained and the capability of a school program to prepare the student for that specific position. During this analysis, tasks that were too complex were broken into components and/or deleted from the job description. Further deliberation is conducted on the prerequisite learnings, scope, and sequence of learning activities are conducted. Finally each task of the job option is rated according to difficulty in the learning environment (Appendix E), and coded for use by instructors and coordinators of school programs.

This phase introduced the important educational dimension to the employment data. It was accomplished through the interactions of special educators, vocational/career educators, rehabilitation personnel, and employers. The interactions were structured by virtue of the discussion focusing on specific job descriptions for a specific handicapped population. In addition to the hard data generated from this phase, the project staff received the benefit of inputs from the task force which aided in the planning for implementation of the data.

The organization of the data resulted in a format, which was used in the job development Coordinators Hand Book (example in Appendix F). These data were prepared for the coordinators use in approaching local managers to establish actual employment opportunities, and to communite with instructors for the purpose of developing educational plans for students. The local employment opportunities were enhanced through endorsements by the upper level personnel managers who were involved in the previous phases. These endorsements take the form of letters, memos, and/or personal contacts with local managers.

C. Field Implementation

The goal of field implementation was to determine the utility of the data generated in the generic job development component of the Career Accessibility Model. Therefore, a demonstration model approach was employed in six different school systems (listed on page 4) in the states of Massachusetts and New Jersey. Initial guidance in planning the field implementation was provided by the project's National Advisory Committee. Appendix G contains a summary of their role and response to questions related to the field site activity.

Site coordinators were identified in each district and a series of planning meetings with target school administrators was initiated. Instructors who would work with the site coordinators were identified and local units of the companies under study were identified. An evaluation methodology, which was consistent with the field implementation goal providing formative and summative evaluation was developed (Appendix H). Finally, a documentation procedure was established to collect the wide variety of data emanating from the demonstration design. (Examples in Appendix I.)

Once these preliminary planning requirements were met the project staff held a summer workshop for the purposes of orienting the field site staffs to the project, and developing sample materials for use in the implementation activities. Examples of these materials appear in Appendix J. During this workshop, each site identified its population and was provided with technical assistance in using the Placement Coordinators Manual. CAM project personnel assisted the career development coordinators in establishing initial local contacts, and proceeding with local job development. The site teams continued trial applications which were consistent with their goals for instruction, and received technical assistance from the project staff as the school year proceeded.

Project management was carried on via the leadership of the project staff, and through the field site coordinators who met periodically to discuss the implementation activities. Additionally, the project staff responded to the field site needs through the creation of products such as the Q-sort technique for parent communications, instruction booklets, and student files. (Examples in Appendix K.) Information sharing mechanisms were established among the sites to effect the benefits of earh participant's activities in response to the career development needs of their students.

Promising and unique applications of the project information were solicited from the site coordinators. Examples of two such reports are found in Appendix L. These are perceptions of the applicability of the CAM information relative to occupational therapy and cooperative work experiences.

Implementation activities were carried on in four distinct components by each of the school sites. They were Local Job Development, Related Instruction, Parent Communication, and Placement and Follow Up. Each site proceeded in a slightly different time frame within the model. Generally each site was involved with Local Job Development at the beginning of the process, which led eventually toward the placement of some of their mentally retarded students. Greater variation was experienced in the areas of Related Instruction and Parent Communication with some sites doing very little of the latter. The feedback used in constructing the model reflects all field site activities.

In Local Job Development the coordinators made contacts with local managers using CAM data, and the initial assistance of the project staff. The concept of establishing groundwork for future placements was promoted as opposed to approaching the employer with a student ready to be placed and asking where he or she "fit." This strategy led to more inputs from the local employers and a spirit of cooperation between the educators and employment community. This role was the most difficult for the coordinators since they were not accustomed to dealing with employers in a developmental effort. Moreover, time constraints impacted on this part of the school-based process more than any other segment. As the coordinators gradually did experience success, they incorporated job development techniques in their regular functions.

Related Instruction was accomplished in both resource room activities and in terms of instructors utilizing the job option information provided by CAM. The greatest success of the instructional component was experienced in the vocational schools of the project where the instructors related most directly to the tasks specified in the job options. Instructional formats were developed to assist the instructors in adapting methods and sequences of learning steps to the individual abilities of the learners. In most cases this related instruction was more successful when the student was involved in a cooperative education where they could experience a real sense of need for the training they received.

Parental Communications occurred on several different levels among the school sites. There were instances where resource room teachers used the Q-sort technique to identify issues for discussion relative to their perceptions and the parent's perception of the child's characteristics in the work setting. An interesting aspect of the use of the Q-sort methodology was the discovery by one site coordinator that her students' perceptions were generally consistent with hers, but that they both varied, in many cases, with those of the parents. Additionally, group meetings were held in some sites and information about the CAM approach in assisting the special needs student toward meaningful careers was discussed. In all reported cases of parent communications, the goal was to make parents partners in the schools' objective to provide career development for the individual student.

One of the most promising areas demonstrated in the Field Implementation was the area of Placement and Follow-Up. It was found that the CAM materials were effective tools in consumating placements where they had not previously existed, due to the schools' incapability to describe the students' specific abilities. Moreover, the information provided a powerful evaluation tool, which enabled the school to follow up on training of a co-op student and/or detect potential problems early enough to correct them. The organized, systematic approach of matching job requirements to student abilities appears to have impacted most in this area of the model. However, as in the Local Job Development segment, this activity was restricted in many cases by the lack of time allotted to specific coordinator assignments.

D. Dissemination

The project staff believes strongly in the benefits of sharing information among researchers and other potential users of our work. This belief was operationalized through newsletters, information packages, seminars and presentations at local, state, and national forums. During the twenty-four (24) months of the Career Accessibility Model Project the staff produced three newsletters, entitled OPTIONS, which were distributed to over seven hundred (700) persons in the field. As a result, we have had over one hundred inquiries about the project, and have maintained further communication with interested people. The OPTIONS newsletter will be an ongoing publication of the Institute for Career Research with which we hope to maintain contact with researchers and educators interested in career development for the handicapped, and particularly in the area of job redesign as it impacts on career development. Copies of the newsletter may be found in Appendix M.

Preliminary findings for the project were presented at the 1977 CEC Convention as part of the Division for Career Development "projects room," and in a brief presentation by the Director at a DCD general meeting. In 1978 the CAM project was chosen to make a major presentation as part of the DCD Agenda. Appendix N contains the program and an outline of that presentation. These national level presentations established many contacts with other projects and researchers, and provided a perspective which enhanced the sense of importance of this topic of study. Feedback from these presentations provided new ground for staff discussions of objectives and methods.

The project staff has made several presentations of the project at regional research conferences, universities, and schools. These efforts have developed into a network of persons using CAM data, methods, and strategies in their schools and funded projects. The project staff is committed to continue to study and share the benefits of our work with others in the important areas of the field.

Chapter III. Results

A. The Model

A primary goal of the Career Accessibility Model was to develop a systematic approach for developing career opportunities for handicapped persons. In the following paragraphs the Career Accessibility Model "CAM" is described and summarized. Application of that model produced thirty-eight (Appendix O) job options, specifically tailored for educable mentally retarded persons in the ten targeted companies of the study. Moreover, further application of the model in one New Jersey field site produced additional job options in occupational areas beyond the Marketing and Distribution cluster, which was the target area for this project.

Generic Job Development Process

This component of the Career Accessibility Model (CAM) provides the basic data which fuels the model. This phase involves a series of interactions (usually 3 sessions) between researchers (or in some cases school personnel directly) and key personnel representatives in businesses and industries with large geographical focus (e.g. Zayre's, Brigham's, Texaco). The company contacts, usually at the division or corporation headquarters level, must have the ability to responsibly articulate general company hiring policies as well as detail specific job requirements in local business operations. The power of this approach is that company information and influence can be generalized from high levels of the organization to numerous outlets proximal to school districts implementing cooperative education programs. Viewed in a pragmatic way, this means that one key contact at Brigham's, who identifies two possible career

CAREER ACCESSIBILITY MODEL

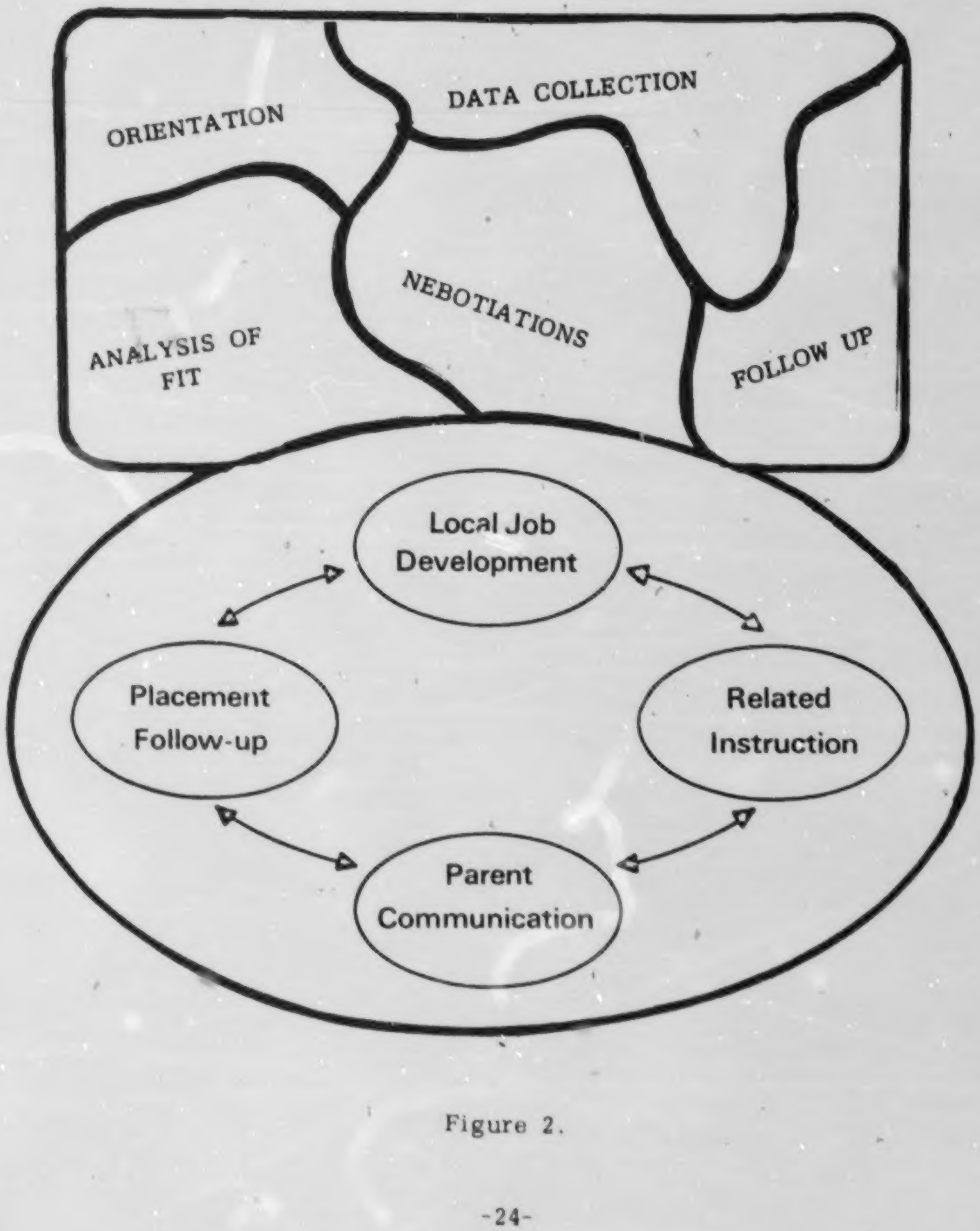
ORIENTATION
DATA COLLECTION
ANALYSIS OF FIT
NEBOTIATIONS
FOLLOW UP
Local Job Development
Placement Follow-up
Related Instruction
Parent Communication

Figure 2.

options in his store, has created at least ten possibilities for placement in Lexington, where there are five Brigham's stores, and six in Newton, where there are three stores.

The following is a list of activities which occur during the interaction with business representatives in the generic job development subcomponent of CAM.

- Presentation of overall education needs of handicapped students.
- Discussion of company policies and operations.
- Consideration of economic and legal aspects related to hiring the handicapped.
- Description of company job requirements.
- Determination of job adjustment factors specific to the company.
- Analysis of the relationship between the capabilities of special needs individuals and normal company requirements.
- Application of job redesign procedures, i.e., breaking down of job descriptions into components, rewriting to fit special needs.
- Negotiation of feasible employment possibilities via cooperative education programs.
- Summarization of new data - job descriptions appropriate for specific handicapped groups, career development charts specific to individual companies, analysis of job adjustment information specific to companies.
- Obtaining commitments from personnel representatives, (a) to urge subordinates within the organization to work with school

systems, and/or (b) to meet with school personnel in local business sites.

Following these activities, two additional processes must occur.

- Analysis and evaluation of new data by a task force consisting of experts in special education as well as business representatives. Here job descriptions are coded relative to levels of learning difficulty.
- Dissemination of data to local educational agencies for use in special education cooperative programs.

In order to link local school systems with the business organizations enlisted in the generic job development phase of the Career Accessibility Model (CAM), numerous school personnel must be involved from the Director of Special Education to individual classroom teachers. However, the special educator involved in cooperative education and placement is most influenced by CAM and this position is viewed here as the focal point for utilization of data delivered from employers. These persons hold different titles in different schools and for the purpose of this project they are identified as placement coordinators.

Local Job Development

The placement coordinator's role in developing job options for special needs students is enhanced by the Career Access Model (CAM) in the following ways:

Contacts: : The coordinator receives the names of local managers who have hiring responsibilities in the original companies (i.e., in the companies identified originally in the generic job development phase) and who have been urged by their supervisors to meet with school personnel in their communities.

Job Descriptions: During the meetings with local business managers, the task outlines developed in the original research are used to direct the discussion toward tasks which are attainable by special needs students and which exist in the respective companies. The employer is asked to verify the possibility of job placements similar to the job descriptions.

Career Development Charts: The charts also focus discussion between the local employer and the coordinator. They enable the employer to explain more easily the relationships between jobs in his business. They also facilitate discussion of the work redesign (whether specific tasks or environmental modifications) that must take place.

General Employability Questionnaire (GEQ): The GEQ is an instrument designed to capture the perceptions of local managers toward the job adjustment factors necessary to maintain employment within their businesses. The employer is asked to fill out a questionnaire for each job option that is identified. This activity provides the local manager with direct input to the career education program.

Organization of Data: A short form summarizing key information about each company is used to keep track of relevant information derived through this process. All possible options, career charts, and GEQ data is also filed for each company with which contact is made. Finally, the organization of files is enhanced by using the task force coding scheme in evaluating the career options.

Placement: Materials derived from the local job development phase improve the process of matching students with placements that fit their individual interests and abilities. Job descriptions and career development charts are used to assist in assessing student needs.

The file of options provides a ready resource for finding appropriate possibilities and following up concerned business contacts.

The materials provide a systematic and structured format for decision-making on the part of the student, the parent, and the educator.

Finally, the job descriptions are used to specifically identify those responsibilities and duties which the student will have on a job in which he or she is ultimately placed. As a result, the student, educator, and employer have a clearer understanding of employment expectations. Actual placements are also filed for future reference.

Follow-Up: The process of follow-up evaluation of student placements is enhanced by the materials derived directly from the employers.

The job description agreed upon at the time of placement is used as a reference tool to monitor student progress and problems.

The GEQ factors identified as most critical are used as a focal point of discussion between coordinator and student, coordinator and employer, or student and coordinator.

Career charts are used to guide the student into job options that are attainable by him/her with growth and development in the work setting.

Instruction

Knowledge of the cognitive, affective, and psycho-motor requirements of work done by students in job placements is translated by school personnel into instruction.

The coded job descriptions indicate levels of difficulty for each task and the GEQ provides work adjustment factors which should be stressed.

Thus, the job description and GEQ data help define the needs of the potential co-op student so that appropriate school resources (teachers, materials, etc.) can be marshalled to assist him/her in exploring different placement possibilities and learning skills vital to successful work adjustment and maintenance. Some special materials developed for CAM are implemented in this phase. After placement, the materials serve as guidelines for in-school instruction which supplements the work experiences.

Parental Involvement

In order to encourage parental involvement in the guidance, instruction, and preparation of students for career placements, the following processes are implemented.

* Use of the GEQ and a special Q-sort methodology to diagnose parental perceptions of their children's social and occupational needs. The items in these instruments are derived from data supplied directly by employers. Follow-up discussions based on discrepancies between parental perceptions and those of educators and employers provide a medium for developing cooperative approaches to the needs of the student.

- Parents are presented with literature concerning specific suggestions which relate family situations to specific responsibilities and duties required in co-op options.
- In conferences with parents, job descriptions, career development charts, and GEQ data are used to enhance an understanding of specific employment opportunities and requirements.

B. Implementation

The second major goal of the Project was to pilot test the utilization of information generated in the Generic Job Development phase of the model. The following reports summarize the effects of that implementation.

Data Uses

Administrative - Activities related to the overall planning and communication in a work experience program for special needs individuals.

1. Has any piece of data been used, or referred to, in writing I.E.P.'s or reports?

   If yes...

   a. Which data was used and in what specific way was it used?

   b. Can you provide us with copies of examples?

   c. Can you describe the effects of their use?

   d. What additional potential uses could you suggest?

   If no...

   a. In your opinion is there any potential to use this information in writing I. E. P.'s or reports?

      If yes...

      (1) Which information?

      (2) In which ways could it be used?

      (3) What precluded the use of the data in your case?

      If no...

      (1) Why do you feel the information has no potential use in this area?

2. Have you had an opportunity to share this information with any colleagues?

   If yes...

   a. With whom? (Name, Title, Occupation)

b. Did this take place in a formal or informal way? Explain.

c. To your knowledge, have others utilized any of the CAM materials or information in ways that you have not yet described?

d. Can you identify other colleagues who might be able to use the CAM data?

If no...

a. Can you identify other school personnel that might be able to use the CAM information?

If yes...

(1) Who and which information?

(2) Is there a particular reason why you were unable to share this information with the above people?

If no...

1. Why not?

Guidance - Use of CAM materials in counseling students about jobs, given student interest and ability in making appropriate decisions.

3. With which students were you able to use CAM information in guiding the career decision making process? (List the names, materials used, how used and effects.)

If none...

Do you see any potential for the information to be used in the guidance process?

If yes...

Which ones?

4. To what degree were you able to help students make reasonable decisions concerning appropriate job placement?

5. Were BEH/CAM materials useful in accomplishing this objective?

If yes...

a. Which ones and how were they useful?

b. Can you give examples of instances when students were counseled from unreasonable to more reasonable decisions about job placement?

If no...

a. Is there potential for the CAM materials to be used in this way?

If yes...

b. Which specific materials and in which way?

c. Why were these not used?

Instruction - Activities related to curriculum development and teaching, both objective knowledge and subjective knowledge.

6. Have you utilized the coded task outlines in classroom instruction?

7. Was the coding of value to you in any way?

8. Were any project materials used to instruct students about employer's expectations? (Objective knowledge.)

If yes...

a. Which specific materials were used?

b. How were these materials employed?

c. What were the results?

If no...

a. Do you think the materials have potential to be used in this way?

b. Which materials?

c. What circumstances inhibited your using these?

9. Were any project materials used to foster better work habits and coping skills in students? (Subjective knowledge.)

If yes...

a. Which specific materials were used?

b. How were these materials employed?

c. What were the results?

If no...

a. Do you think these materials have potential to be used in this way?

b. Which materials?

c. What circumstances inhibited your using these?

10. Were project materials useful in getting students to describe their feelings about different work settings?

If yes...

a. Which specific materials were used?

b. How were they employed?

c. How successful were they?

If no...

a. Do you think these materials have potential to be used in this way?

b. Which materials?

c. What circumstances inhibited your using these?

11. Were project materials useful in helping students to better accept criticism?

If yes...

a. Which specific materials were used?

b. How were they employed?

c. How successful were they?

If no. .

a. Do you think these materials have potential to be used in this way?

b. Which materials?

c. What circumstances inhibited your using these?

12. Were project materials useful in preparing students to make improved judgements relative to job selection?

If yes...

a. Which specific materials were used?

b. How were they employed?

c. How successful were they?

If no...

a. Do you think these materials have potential to be used in this way?

b. Which materials?

c. What circumstances inhibited your using these?

13. Have project materials had an impact on instructional techniques (methods) of teaching?

If yes...

a. Which specific materials were used?

b. How were they employed?

c. How successful were they?

If no...

a. Do you think these materials have potential to be used in this way?

b. Which materials?

c. What circumstances inhibited your using these?

Evaluation - The total assessment process from diagnosis to to placement and follow-up.

14. What system of follow-up and job placements of a formal or informal nature was employed by the school prior to CAM staff involvement?

15. Have modifications in that system come about as a direct result of the BEH/CAM involvement?

If yes...

a. Which specific materials were used?

b. How were they employed?

c. How successful were they?

If no...

a. Do you think these materials have potential to be used in this way?

b. Which materials?

c. What circumstances inhibited your using these?

Placement - The coordinating linkage between students and the business community.

16. Have you been able to place special needs students in jobs?

17. Which companies and what kind of work? (List)

18. Was CAM information and material used in any of these cases?

If yes...

a. Which data was used?

b. At what point were they employed in the placement process?

c. How were they received by the employer?

If no...

a. Do you think these materials have potential to be used in this way?

b. Which materials?

c. What circumstances inhibited your using these?

19. How were openings for these placements originally found?

20. Were placement files set up on each student in the program?

If yes...

a. Were student summary sheets used?

b. How many students were involved?

c. Was the file referred to once the student was placed?

d. Were you able to keep files up-to-date?

If no...

a. Do you think CAM materials have potential to be used for this purpose?

b. Which materials?

c. What circumstances inhibited your using these?

21. Were the files useful in ways other than for placement? Explain.

22. Were your files orgnaized around the three levels of ability used in coding the tasks?

If yes...

a. Which specific materials were used?

b. How were they employed?

c. How successful were they?

d. Have new job descriptions been coded in a similar manner?

If no...

a. Do you think these materials have potential to be used in this way?

b. Which materials?

c. What circumstances inhibited your using these?

23. What system existed for keeping track of actual job placements, formal or informal, prior to BEH/CAM involvement?

24. Have modifications in that system come about as a result of BEH/CAM involvement?

If yes... (Company summary sheets)

a. Which specific materials were used?

b. How were they employed?

c. How successful were they?

If no...

a. Do you think these materials have potential to be used in this way?

b. Which materials?

c. What circumstances inhibited your using these?

25. Was the critical incidents book of use?

Parent Communications - Communication with parents of exceptional students to both provide and obtain information about their child.

26. Were you able to use the Q-Sort technique with parents?

If yes...

a. How many parents participated?

b. How successful was the experience in developing mutual understanding of students' abilities and employment potential?

If no...

a. Do you think the Q-Sort methodology has the potential to improve parent/teacher awareness of student's needs?

b. What circumstances inhibited your use of this technique?

27. How often do you meet with parents of your students?

28. Have you shared any data from the BEH/CAM project with parents of your students?

If yes...

a. Which materials?

b. Why were they shared?

c. What were the effects?

If no...

a. Do you feel these materials would be of interest to parents?

b. Which materials?

c. In what ways would they be useful?

d. What circumstances inhibited your using the CAM materials with parents?

Data Uses
New Jersey Field Sites
Summary (1977-1978)

Administrative

1. Has any piece of data been used, or referred to, in writing IEP's or reports?

Student summary sheets, and task outlines have been used to write reports for local child study team meetings. Information has been more easily accessed as a result of keeping this data. The county vocational schools (shared time) are not currently writing IEP's. Our programs are part of the youngsters' IEP's written by the High School. However, this section of the IEP is very cursory, and we see, in the future, our part of a development of the IEP being much more comprehensive, requiring the data generated from the activities of this project.

2. Have you had an opportunity to share this information with any colleagues?

Information Sharing Key

1. Data was used in internal information sharing with school district colleagues.
2. Data was used for explaining the CAM project to interested public and professional groups.

a.	Curriculum Development in Vocational Education, graduate course, Jersey City State College, 11/21/77.	2
b.	Freehold Regional High School High School District parents group, formal meeting, 11/20/78.	2

c.	Allentown High School Child Study Team, conference, 12/15/77.	1
d.	Monmouth County Career Education Council, formal meeting, 1/23/78.	2
e.	Special Education Teachers, Marlboro High School, conference, 3/7/78.	1
f.	County Secondary School Principals Association, formal meeting, 3/14/78.	2
g.	Craft Advisory Committee Members, formal meeting, 5/3/78.	2
h.	Vocational Education for Special Needs Individuals, graduate course, Glassboro State College, 5/10/78.	2
i.	Dean Garwood, State Coordinator for Special Needs, conference 6/9/78.	2
j.	Career Services Personnel (Debbie Burger), Brookdale Community College, 6/19/78.	2
k.	Association for Children with Learning Disabilities, formal meeting, 7/5/78.	2

Guidance: Use of CAM materials in counseling students about jobs, given student interest and ability in making appropriate decisions.

The following chart includes not only guidance and counseling activities involving data use but also a breakdown of the use in instruction and placement. The data uses in instruction is further explained later in the report. The placement category is also further explained later, however, the placement was either a mainstreaming into regular vocational program (M/S) or a placement in work experience (W/E) employment.

3. With which students were you able to use CAM information in guiding the career decision making process? (List the names, materials used, how used and effects.)

Student	Materials	Use	Effect
Cindy	Task Outlines Summary Sheet Company Data	Instructional Placement (W/E)	1 Success 1 Failure in Placement
George	Task Outlines Summary Sheet Company Data	Instructional Placement (W/E)	Success
Denise	Task Outlines Summary Sheet	Instructional Placement (W/E)	Failure
Gail	Task Outlines Summary Sheet	Instructional Placement (M/S)	Moderate Success
Margaret	Task Outlines Summary Sheet Company Data	Instructional Placement (W/E)	Success
Robert	Task Outlines Summary Sheet Company Data	Instructional Placement (W/E)	Success
Elizabeth	Task Outlines Summary Sheet Career Chart	Instructional Guidance Placement (W/E)	Moderate Success
Edward	Task Outlines Summary Sheet Career Chart	Instructional Guidance Placement (M/S)	Moderate Success
Gerard	Task Outlines Summary Sheet Career Chart	Instructional Guidance Placement (M/S)	Little Success
Steven	Task Outlines Summary Sheet Career Chart	Instructional Guidance Placement (M/S)	Success

Student	Materials	Use	Effect
Paul	Task Outlines Summary Sheet Career Chart	Instructional Guidance Placement (M/S)	Little Success
Julio	Task Outlines Summary Sheet Career Chart	Instructional Guidance Placement (W/E)	Success
Charles	Task Outlines Summary Sheet	Instructional Guidance Placement (M/S) (W/E)	Success
Herbert	Task Outlines Summary Sheet Company Data Career Chart	Instructional Guidance Placement (W/E) (M/S)	Success
Leonard	Task Outlines Summary Sheet Company Data	Instructional Guidance Placement (W/E)	Success
Ali	Task Outlines Summary Sheet Company Data	Placement (W/E)	Success
Bill	Task Outlines Summary Sheet Company Data Career Chart	Instructional Placement (M/S)	Success
Thomas	Task Outlines Summary Sheet Company Data Career Chart	Instructional Guidance Placement (M/S)	Failure
John	Task Outlines Summary Sheet Company Data Career Chart	Instructional Guidance Placement (M/S)	Removed from school - progress was being shown

Students were counseled in and out of vocational set aside program, regular vocational program mainstreaming, and work experience program. Data was used to inform students of required employment skills, and company environment. Students were placed either in a mainstream shop or work experience program and monitored as to their success or failure. If a student was totally accepted in the mainstream or work setting the effort was considered a success. When mistakes were made in placement resulting in a poor match, which had to be completely changed, the effort was considered a failure, but a failure which produced additional information for student program development. Where careful consideration was given to all the variables accumulated through the development of student summary sheets, task outlines and company data sheets, success was found more likely. Failure and mistakes occurred when all variables, especially those observed by teachers, were not considered.

4. To what degree were you able to help students make reasonable decisions concerning appropriate job placement?

Several students were aided in making more reasonable decisions concerning appropriate job placements during the project.

Of particular note were:

5. Were BEH/CAM materials useful in accomplishing this objective?

Steve - wanted to work in a laundry; had no other interests. Convinced he would like to try custodial work, and is now happy with that decision.

Cindy - failure in one job setting (sign maker), however, redirected and counseled into another (kitchen aide), and well adjusted.

Herbert - only interest was auto mechanics, mainstreamed with Task Outlines, boy became aware of limitations, accepted employment in production work.

Instruction: Activities related to curriculum development and teaching, both objective knowledge and subjective knowledge.

6. Have you utilized the coded task outlines in classroom instruction?

Coded Task Outlines were used to generate instruction in areas where specific jobs had not yet been located. For example, in auto mechanics the teachers used the service station attendant's Task Outlines to develop instruction for EMR's that were to be mainstreamed into the program.

The food service teacher also used the salad bar tender's Task Outline to develop his instruction for anticipated EMR.

7. Was the coding of value to you in any way?

Coding was valuable for initial planning in curriculum for EMR's. It gave the regular teacher, who had limited knowledge of the handicapped, a place in which to start.

8. Were any project materials used to instruct students about employer's expectations? (Objective knowledge.)

Task Outlines, General Employability Questionnaires, Company Summary Sheets, were used by coordinators to describe to the students the exact nature of the environment they would enter if they took a particular job.

Regular vocational teachers used the coded Task Outlines to develop specific instruction for small groups of students mainstreamed into their class. The Task Outlines were broken down to factor out tasks, which the vocational teacher could best teach in the mainstream. Those tasks which were related to the manipulative skills, but not generally taught with the intensity necessary for the EMR student in the vocational shop, i.e. measurement and credit card computation were taught by the resource teacher. Teachers also used Task Outlines developed by our coordinator for a specific job option to instruct students in necessary skills prior to job placement.

9. Were any project materials used to foster better work habits and coping skills in students? (Subjective knowledge.)

Emphasis was placed on information gathered from the GEQ, Employer Summary Sheets, and coordinator-employer interviews to instruct students in specific employer expectations, such as need for transportation, clean personal grooming habits, appropriate relationships with co-workers.

10. Were project materials useful in getting students to describe their feelings about different work settings?

Project materials were not used to any great extent in getting students to describe their feelings about different work settings. While the materials certainly have that potential, they are not currently broad enough, in the job areas they cover, for teachers to use in lieu of the traditional materials available for this purpose, i.e. books, filmstrips, etc.

11. Were project materials useful in helping students to better accept criticism?

Not applicable.

12. Were project materials useful in preparing students to make improved judgements relative to job selection?

This is covered in the guidance section, and was an activity engaged in by the coordinator but with few exceptions, not by the student's teacher.

13. Have project materials had an impact on instructional techniques (methods) of teaching?

The project materials have had a definite impact upon instruction, in that they systematized the process of instruction by providing specific information to both vocational shop teachers, and resource teachers. It provided for a method of support for the shop teacher not in existence prior to the project. Teachers had a system for communication, dealing with problems, necessitating intervention by special education teacher or counselor. A component was added whereby the school personnel were ready to develop curriculum on the basis of a specific job option waiting for the student's readiness.

Evaluation: The total assessment process from diagnosis to placement and follow-up.

14. What system of follow-up and job placements of a formal or informal nature was employed by the school prior to CAM staff involvement?

Prior to CAM, special education students were placed by the regular cooperative education coordinator or guidance counselor. Very little was known by these professionals about the student's abilities, interests, and other problems, and jobs were attempted to be found via the same methods used for regular vocational graduates. This did not produce acceptable results in terms of placement.

15. Have modifications in that system come about as a direct result of the BEH/CAM involvement?

Modification of this process has been the total involvement of the guidance counselor in job development and placement of handicapped students. Placements have been a result of the counselor's thorough knowledge of a student's ability, and interests, and with active consideration of transportation, parental acceptance, and employer preparation. Task Outlines have been developed by the counselor, student summary sheets completed, and company summary sheets used to provide prior student training, and acceptable fit between student and job. Frequent contact has been made with employers to determine the quality of placement. Contact is maintained with student to head off potential problems or provide another placement if necessary. The school district will hire a full-time placement coordinator to work in this area next year.

16. Have you been able to place special needs students in jobs?

17. Which companies and what kind of work? (List)

18. Was CAM information and material used in any of these cases?

16. 17. and 18. Job Placements

Student	Company	Job Title	Data Used	Point Employed	Reception
Ali	Marlboro Restaurant	Cooks Helper	Summary Sheet	Post-Placement	N/A
George	Solar Industries	Production	Summary Sheet Company Data Task Outlines	Pre-Placement	Good
Herbert	Solar Industries	Production	Summary Sheet Company Data Task Outlines	Pre-Placement	Good
Nicholas	Bambergers	Custodian	Task Outlines Career Chart Summary Sheet Company Data	Pre-Placement	Excellent
Robert	Bambergers	Custodian	Task Outlines Career Chart Summary Sheet Company Data	Pre-Placement	Excellent
Steven	Central Jersey Leader	Custodian	Task Outlines Career Chart Summary Sheet Company Data	Pre-Placement	Excellent
Cindy*	Two Guys	Sign Painter	Task Outlines Career Chart Summary Sheet Company Data	Pre-Placement	Excellent
Cindy	Central Jersey Trust	Kitchen Aide	Task Outlines Career Chart Summary Sheet Company Data	Pre-Placement	Excellent

*Removed by mutual agreement between school and business. Perceptual problems kept her from being able to complete key tasks

Student	Company	Job Title	Data Used	Point Employed	Reception
Leonard	Two Guys	Custodian	Task Outlines Career Chart Summary Sheet Company Data	Pre-Placement	Excellent
Charles	Sears	Service Station Attendant	Summary Sheet Task Outlines	Pre-Placement	Fair
Margaret	Monmouth County Vocational School	Office Aide	Summary Sheet Task Outlines	Pre-Placement	Excellent

19. How were openings for these placements originally found?

The coordinator made appointments at businesses, similar to those in Massachusetts, to talk with personnel officers. Bambergers, Sears, and Two Guys are examples of these types of businesses. Personnel officers were familiarized with the concept of job redesign and the task outlines from similar companies. The coordinator explained the nature of handicapped conditions students had, and what their limitations were. Several jobs were redesigned (sign painter, kitchen aide, office aide), and existing potential jobs were identified. The coordinator then began going to businesses, located close to students' homes (because of the poor mass transportation in Monmouth County), and presenting the project concepts and examples of how businesses had worked with us to identify and create further employment opportunities.

20. Were placement files set up on each student in the program?

Twenty-four student placement files were set up. These included files for seniors in anticipation of job placement, as soon as possible, in co-op and full-time employment. Files were also prepared for sophmore and junior students who were not priority for placement but involved in mainstreaming, awaiting placement. Student summary sheets were prepared for each student, and referred to by the principal, coordinator, and teachers. Files were kept up-to-date with pertinent information throughout the year. A copy of the company summary sheets, and task outlines applicable to the student, as well as the student summary sheets, are being kept in the files.

21. Were the files useful in ways other than for placement? Explain.

Teachers used the student files to add and retrieve information important to student growth and placement. The principal and guidance counselor had access to the files to answering queries from local high schools and parents.

22. Were your files organized around the three levels of ability used in coding the tasks?

No.

23. What system existed for keeping track of actual job placements, formal or informal, prior to BEH/CAM involvement?

Monthly reports were kept by the CIE coordinator indicating date of placement, employer, job title, work hours, hourly rate, and date of visits. However, there were no students from the handicapped program placed.

24. Have modifications in that system come about as a result of BEH/CAM involvement?

The same system, as referred to above, is used for reporting on-job placements. The system is now more comprehensive with coordinators keeping up-to-date any data in the student file.

25. Was the critical incidents book of use?

No.

Parent Communications: Communication with parents of exceptional students, to both provide and obtain information about their child.

26. Were you able to use the Q-Sort technique with parents?

Q-sort technique was not used with parents this year. With all the other aspects of the project being implemented, and the limited staff, primarily the absence of a full-time coordinator, we were not able to use the Q-sort with parents. We did, however, use it with teachers to get a better understanding of students, and feel it has definite potential for use in parent-teacher/counselor interviews; teacher-teacher conferences; and student-teacher/counselor conferences. This will become part of our program next year.

27. How often do you meet with parents of your students?

We have met, or talked with parents, throughout the year to discuss student programming and placement. We also meet with parents, in Child Study Team meetings, and through parent requests for personal feedback on student progress.

28. Have you shared any data from the BEH/CAM project with parents of your students?

Two parents that have requested more contact with the school have been briefed on our efforts with the project, and in particular the Q-sort, and we will be meeting with them in September. Parents in parent organizations have been appraised of the project, its methodology, and objectives in order to explain our goals for their youngsters. The project has met with enthusiastic acceptance by parents, students, and our professional colleagues.

CAREER ACCESSIBILITY MODEL
FOR
SPECIAL NEEDS INDIVIDUALS

Report on Data Use

July 7, 1978

Introduction

The author conducted on-site interviews with each of four work experience coordinators: Robert Stirling, Holbrook (5/25/78); Helen Brennan, Wrentham (6/2/78 and 6/15/78); Robert Chalmers, Newton (6/7/78 and 6/12/78); and Richard Lee, Lexington (5/30/78) in order to determine the extent of use of Career Accessibility Model (CAM) data and materials and to gather information as to potential usage. These materials and data, referred to in this report, grew out of the first year's work by project staff, and their interaction with upper level managers in participating companies. In the first year, 38 new job options for special needs students were derived; profiles of each participating company were compiled; the General Employability Questionnaire was developed, administered to managers, and analyzed; a task force of prominent special educators was assembled and they rated task difficulty in the new job options; a conceptual model was developed; career development charts for special needs students were identified; and formal support was gained from upper level managers for the project goals. From these activities, Generic Job Development and Local Job

Development concepts were conceived. Student summary sheets, a Q-Sort methodology, and booklets were developed specifically for use in school sites.

To understand better how these materials and data were used in the four school sites, a comprehensive branching interview questionnaire was designed for this purpose (see Appendix I) along with a diagram of the CAM model, definition of the seven areas of major concern, grid organization chart, and a chart showing the relation between CAM data, organization roles, and program goals (see Appendix II). Coordinator were asked to be candid and honest in their answers, and informed that their responses would be used for reporting purposes. At the conclusion of each interview the coordinator was asked to rank order the various CAM materials in order of their use and importance in performing his/her respective duties in the school.

Administrative: Activities related to the overall planning and communication in a work experience program for special needs individuals.

There is some evidence to suggest that CAM data (job descriptions, student and company summary sheets, and career development charts) were used in activities related to overall planning and communication in a work experience program for special needs individuals. The above identified materials were used to augment teacher prepared and commercial materials to develop understanding on the part of special education teachers, supervisors, administrators, and classroom teachers of the importance of a work experience program for special needs students. These data were used in both formal and informal situations for reporting and planning with superiors. The data proved to be of major benefit in terms of organizing relevant information on the program, in an easily understandable and meaningful way for communicating to school officials and colleagues.

There are some mixed feelings on the part of respondents as to potential uses of CAM data for reporting. One respondent was assigned no reporting responsibilities for this period (September 1977 through June 1978). Job descriptions, GEQ data, and Q-Sort information were sited as the best choices, particularly for familiarizing administrators with the needs of a work experience program for special needs students and soliciting their support.

The reaction to the use of these materials by the administration seems to have been positive. Administrators provided increased support, as well as a greater degree of latitude, in functioning for the coordinator. It has been suggested that from this initial experience with the materials the program can be streamlined to better dovetail with the expectations of employers in the local community as well.

Greater utilization of CAM materials for reporting and communicating was inhibited by time constraints and in one case by the development of an exploratory program, which was being implemented at the time of CAM involvement.

Half the coordinators reported having shared CAM materials and information on a formal as well as informal basis with colleagues. These included principals, both in Massachusetts and in Florida, other school administrators, teachers in culinary arts and distributive education, regular education placement personnel, an occupational therapist, guidance counselor, and directors of special education. However, there is no information concerning ways in which this material was used by these professionals beyond that which has already been described.

Each coordinator felt that there were other professionals in the school system who could make use of CAM data and materials. Directors of alternative education programs, teacher aides, counselors, teachers, special needs teachers, and tutors were mentioned. It was felt these people could make direct use of job descriptions, career development charts, booklets, and possibly the coded job descriptions. Sharing of this material with the above colleagues was limited primarily due to lack of contact with them. All the coordinators in the Massachusetts sites are assigned teaching responsibilities, along with other program duties, and frequently end up working with a small, select group of special needs students.

Two issues seem to have emerged in the area of administrative duties of coordinators in relation to uses of CAM data. First, the most universal issue seems to be the continuing difficulties of fully integrating programs for special needs students with other areas in the school program. Second, there is a need for greater exploration as to the types of reporting systems used in each school, and specific endeavors to develop ways of incorporating CAM information into those systems. This should be established as a specific goal.

Guidance: Use of CAM materials in counseling students in making appropriate decisions about jobs, given student interests and abilities.

Several cases were sighted in which students were guided both into and away from particular jobs through the use of CAM materials. In one case two girls showed interest in working in restaurants and fast food chains. Using the booklet, "Work People Do in Restaurants," individual discussions were held with both students. One girl decided it was work she could do, and desired to do. She was subsequently placed in a restaurant job and did well. After reading the booklet, the other young woman decided the work did not appeal to her, and began exploring other possibilities.

In another instance, a student showed an interest in physical therapy. The coordinator used the job description of a nurses aide, and physical therapist aide in counseling the student. She was subsequently placed at the Kennedy Center in Foxboro, Massachusetts as a physical therapist's aide, and performed well on the job.

In more general terms it was reported that the booklets, job descriptions, GEQ data, Q-Sort, student summary sheets, company summary sheets, and career development charts were used in conjunction with other materials in counseling more than 20 students in both group and individual situations. It was further suggested that on-site visits to the actual work sites were extremely helpful.

Of those students for which there is evidence of job success, several coordinators suggested some of that success can be directly attributed to the use of CAM materials. It was suggested that the materials provided the needed focus on the specifics of particular jobs, as well as giving indication of employers' expectations of employees. They made clear the specific behavior and task demands of the job prior to actually being hired.

One coordinator described a situation in which a student was counseled from an unreasonable placement expectation to a more reasonable one. A young man wanted to be a policeman, which for him was unattainable. However, through the use of a series of job descriptions from the CAM materials the student was redirected toward an attainable job as a security guard. He was subsequently placed with McDonald's where his job description included security duties and maintenance tasks. At the completion of the work experience program this student was offered the position on a full-time basis.

All of the coordinators agreed that the CAM materials have potential to be used in counseling students toward more

reasonable and appropriate career goals. It was suggested that the scope of the job descriptions and career development charts should be broadened to include jobs in other clusters.
Instruction: Activities related to curriculum development and teaching both objective knowledge and subjective knowledge.

Coded task outlines were not utilized in any area of classroom instruction. It was felt that the coding of task difficulty was only a general figure, which would be of limited value in discussion with employers or new teachers in the field as they were based too heavily on stereotypes and of very limited value.

All the coordinators used CAM materials in instruction of students about employers' expectations (objective knowledge). They employed the use of job descriptions in showing the relevance of lessons to particular jobs, and tasks within those jobs, career development charts to show advancement on the job, locally developed GEQ data for class discussion about employers' expectations, and Q-Sort materials and booklets in discussion of personal perceptions of jobs with individual students. Some coordinators use commercially produced materials to aug-ment CAM materials while others used CAM materials to augment commercial materials.

Most of the coordinators stated that their evaluation of the results of the use of CAM data and information was subjective, and at times intuitive, but that it was always positive.

One coordinator cited several situations in which project materials were used to foster better work habits and coping skills in students. In one instance an employer raised concern that the student, who was working as a gas station attendant, was too slow in waiting on customers, and he became confused during busy hours. The coordinator used the job description as a guide and set up a role playing situation in the classroom to recreate the job situation. Props were made, and other students assisted in various roles. Service to customers was timed, and contingencies for doing different tasks during busy hours were discussed and developed. This same task outline was used in the automotive shop where this same student continued to develop his skills in changing tires. As a result of the careful instruction and follow-through this student was eventually hired full time by this same employer.

Those coordinators who did not use the CAM materials in fostering better work habits and coping skills did see potential uses. Some felt specific job descriptions and career charts would be more helpful while others felt the Q-sort materials, in conjunction with GEQ data, would be more effective.

One coordinator became specifically involved in student descriptions of their feelings about work settings. Students were asked to do a Q-sort before taking, and after leaving a job. Discussion focused on liking or disliking a job, and students' reactions to jobs were recorded on the coordinator's company summary sheets for future reference with other students. In addition, students were also asked to search newspapers for jobs they felt they could perform well. They discussed their own perceptions about the work and ways in which they could generalize their own talents.

Those who did not explore student feelings about work settings did feel the Q-sort, job descriptions, booklets, and GEQ data could be effectively used for this purpose.

There were no reports from coordinators in which CAM materials were used in helping students to better accept criticism. However, it was felt by each coordinator that the Q-sort technique has potential to be used in this area.

As described earlier in the guidance section, instances have been reported where project materials were used in preparing students to make improved judgements relative to job selection. Additionally, two other coordinators feel the materials have the potential to be useful in this area though they recognize that the CAM materials need to be greatly expanded to include a variety of other types of work.

None of the coordinators reported a change in their instructional techniques or methods of teaching as a result of CAM materials. Several coordinators reported the materials influenced their ideas for planning classes and helped provide a focus for relating career education to other learning situations. Particular task outlines, career development charts, and company summary sheets were employed in lessons.

Evaluation: The total assessment process from diagnosis to placement and follow-up.

Each coordinator described the job placement and follow-up system prior to CAM involvement. Each was slightly different in nature, but all relied on personal contacts for finding jobs. One coordinator relied heavily on vocational instructors for contacts. Once jobs were found it was a matter of finding students to fit them. One coordinator was in charge of work study placement for the entire school, and spent only about 20% of his time on placements for special needs students. Follow-up contact among coordinators ranged from personal contact twice per year to two written forms plus 2 or 3 on-site visits per marking period.

Modifications in these systems were reported in two schools as a direct result of CAM project involvement. Through the use of GEQ's, job descriptions and career development charts with employers, changes in job descriptions were made to better match the abilities of particular students (i.e., jobs were redesigned). Evaluation forms, GEQ data, and job descriptions were then used in discussions with students in some cases. This was felt to be very beneficial, both to individual students, and to the program. Employers seemed quite impressed with the preparation exhibited by coordinators, using these materials, and students received placements which held greater potential for individual success.

Placement: The coordinating linkage between students and the business community.

All the coordinators were able to place special needs students in jobs. A total of 49 placements were made.

*2	Utility Kitchen Helpers	Marriott Hotel
1	Dietary Aide	Nursing Home
1	Housekeeper	Nursing Home
*2	Counter Clerks	Mr. Donut
1	Clerical	Insurance Company
1	Media Aide	In School
15	In-School Placements	
	7 Clerical	
	3 Office Aide	
	1 Bottle Capper	
	2 Stockroom Aide	
	2 Cleaning and Maintenance	
4	Assembly Line	Barcolene
1	Bus Girl	Andrianos Restaurant
2	General Office Work	Superintendent's Office
*3		McDonald's
*1	Teacher Aide	Kennedy Center
*1	Bench Work	Royal Hinge Tool and Die
1	Testing	Kidney Machine Factory
*1	Spot Welder	Sousa Brothers
*2	Service Station Attendant	Gulf/Citgo
1	Mail Clerk	Blue Cross/Blue Shield
2	Aides	St. Elizabeth Hospital
1	Used Car Sales & Maintenance	American Motors
*2	Salad Maker/Kitchen Assistant	Honeywell
1	Stockboy	Triple A Grocery
1	Sheltered Workshop	
4	CETA Related Jobs	
1	Store Clerk	School Store
1	Yard Assistant	Salvage Yard

*Specific use of CAM materials.

There was a varied amount of usage of CAM materials in securing these jobs. In those companies where CAM staff had made contact during the first year phase, coordinators reported a greater receptivity on the part of local managers to consider hiring a handicapped student.

Coordinators reported using company contacts, job descriptions, career development charts, and GEQ's with employers in the initial stages of job development. The materials were well received by employers and the coordinators ordinators felt very positive about the process. One manager at McDonalds scaled down several jobs in order to accommodate handicapped students, and also communicated the process to his successor.

There was one instance where it was reported that even though there were job descriptions confirmed by the personnel department of a particular chain, local managers expected all employees to be capable of doing a variety of jobs at any given time. The manager was reported as saying his budget would not allow the specificity of task allocation that CAM materials suggested.

All the openings for the above placements were originally found through personal contact; guidance, placement or career offices in the school, other instructors, and through the newspaper.

Each coordinator maintains a file on each student placed. In each case a type of student summary sheet was employed. Each of the total 53 files was referred to frequently, and notes were entered for follow-up purposes and up-dating. Additionally, these files were found to be useful in reporting, review with students, in discussion of future placements, and in communications with parents.

None of the files were orgnaized around the three levels of ability used in coding the task outlines, and none of the coordinators viewed this as a potential asset in filing.

Beyond the individual coordinator's placement file, he/she has access to the school's central file, which contains a great deal more psychometic information.

One coordinator reported having reorganized the files around CAM materials as they were more specific, and more clearly organized for this purpose. Both company summary sheets, and student summary sheets were employed along with Q-sort information. This coordinator felt the materials better met the needs of the students, coordinator, and program than those previously used. Two other coordinators felt there was some potential for the student summary sheets, and company summary sheets to be incorporated with their present system.

Two coordinators began using the critical incidents book suggested by CAM staff. One continued its use as a log of conversations and meetings with potential employers.

Parent Communications: Communication with parents of exceptional students, to both provide, and obtain information about the student.

One coordinator used the Q-sort technique with parents. It was reported as only marginally successful, as the parents appeared upset with the review of the child's entire program scheduled earlier that day. Others had used the Q-sort successfully with students and colleagues, and all participants felt strongly that the technique had potential to be used with parents. One coordinator has scheduled its use with each parent of incoming freshmen for next year.

One problem in the use of the Q-sort is the lack of coordinator's face-to-face contact with parents. Coordinators report seeing parents from once to twice per year on an individual basis, and 2 to 3 times on a group basis. Some coordinators have additional contact from 3 to 5 times per year by phone.

One coordinator reported sharing the Q-sort technique, job descriptions, and career development charts with parents in an attempt to explain particular jobs being considered with their children. It was felt that this exposure to CAM materials facilitated communications with the parents, and assisted in the development of an understanding on the part of the parents for the program goals.

The remaining coordinators agreed that parents would be interested in the CAM materials; particularly job descriptions, career development charts, GEQ data, and the Q-sort. It was felt these would be useful in communicating general program goals and specifics related to jobs their child may be considering.

Each coordinator was asked to rank each of the CAM materials in order of importance. The results in order of overall importance are as follows:

1. Task outlines (i.e., job descriptions).
2. Company contacts.
3. Q-sort.
4. Career Development Charts.
5. Job Booklets.
6. Forms (Student Summary Sheets, Company Summary Sheets).

7. General Employability Questionnaire (GEQ).

8. Coded task outlines.

It should be noted that materials from the CAM project were shared with a director of special education. Through this involvement this director authored a grant, which was subsequently funded to provide the school system with a coordinator of work experience for special needs students. The process and materials to be used in the program stem directly from work and materials in the CAM project.

In summary it seems reasonable to suggest that the Career Accessibility Model for Special Needs Students provides valuable information and materials, and holds a great deal of potential to aid in the development of a success oriented work experience program for special needs students in both the public and private school communities. Though all but one of the materials has been demonstrated to be useful in a work experience program, it is the author's opinion that the coordinator's rank ordering of the data isolates the most important (i.e., the first four). Information from company contacts, which reflect a process of job development, task analyzed job descriptions, career development charts, and the Q-sort methodology are distinctive assets when employed in a work experience program. A great deal of research is yet to be done with those processes and materials. They need further investigation and expansion, yet the justification for that type of commitment has been established.

Final Evaluation Report for the
Career Accessibility Model Project
Prepared
by
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Overview of the Project

The Career Accessibility Model (CAM) Project was designed to help in preparing handicapped students for entry into the work force. Six school districts, or project sites, were identified for participation in CAM; four sites in Massachusetts and two in New Jersey. The BEH/CAM staff was to facilitate job placement by providing each site with local business contacts who were aware of the CAM efforts. The BEH/CAM staff was also to develop materials for use by the school site staff in six major areas:

1. Administrative: Activities related to overall planning and communication.
2. Guidance: Counseling students on appropriate jobs, given their interest and ability, with the goal of facilitating student decisions relative to job placements.
3. Instruction: Curriculum development and teaching.
4. Evaluation: The total assessment process from diagnosis to placement and follow-up.
5. Placement: Coordinating the linkage between student and the business community.
6. Parent: Communicating with parents, to both provide and obtain information about their child.

The business contacts and the development of much of the materials took place in the first year of the project, the 1976-77 school year. In the second year of the project (1977-78), much of the BEH/CAM staff's time was spent aiding and instructing school site staff in the use of the materials and in keeping up the business contacts. It is these second year activities, and the degree to which they were accomplished, for both the BEH/CAM staff and the school site staff, that form the basis of the final evaluation report. In the following sections of this report, the evaluator's role, the goals and objectives for the school site staff and the BEH/CAM staff, the degree to which these objectives were met, and a summary of the evaluation findings together with conclusions and recommendations are presented.

The Evaluator's Role

All of us who have administered a project of any sort are probably aware of the danger of becoming so involved in the day-to-day management of the project that we lose track of the overall project aims and objectives. Put another way, it's the proverbial "missing the forest for the trees" phenomenon. The BEH/CAM staff was aware of this potential pitfall and decided that regular meetings with an external person, designed to keep them on track, may guard against this pitfall. Thus, one of my roles as external evaluator was formative in nature. The BEH/CAM staff and I would discuss what activities were to take place in the near future, what ends these activities were intended to accomplish, vis a vis the project's goals and objectives, and how best to obtain data which could be used to assess the extent to which the activities accomplished the desired ends.

As a first step, then, the goals and objectives of CAM for both the school site staff and the BEH/CAM staff had to be clearly specified. Through the interaction of the BEH/CAM staff and myself, the original project model was modified to encompass the six areas described in the previous section of this report. Within each of these six areas, again through the interaction of the BEH/CAM staff and me, objectives for the project were specified. Another aspect of my role as evaluator was to put these objectives in writing, and suggest ways of obtaining data which would indicate how well each objective was met. My report of April 20, 1978 does exactly this. Thus, my role was threefold. First, I was to aid in keeping the project on track; second, I was to help in the clear specification of the project's objectives and data necessary to assess the accomplishment of these objectives; and third, I was to evaluate the extent to which these specified objectives were met. The following section attends to this third aspect of my role, but first I would like to share my general impressions of the CAM project.

The BEH/CAM staff showed extraordinary commitment to the project throughout this past year and displayed a firm belief in the worth of their project. Their concern for the project's success was exemplified by their rational use of an external evaluator. The BEH/CAM staff was not solely interested in being told what a great job they were doing, or in my accentuating the project's strengths and minimizing its weaknesses. They showed a genuine concern in my impressions of areas that seemed weak and in need of improvement. We discussed these areas at length, and together tried to arrive at alteratives which would strengthen the project. By the same token, aspects of the project that seemed to be progressing well were identified and discussed. I have worked as an external evaluator for a number of years now, and I must point out that the BEH/CAM staff's receptivity to evaluation is the exception rather than the rule. I feel that the BEH/CAM staff is to be commended for their commitment to the project, and to the evaluation component of the project, regardless of how well the findings to be presented in the next section fare.

The Extent to Which CAM Objectives Were Accomplished

The objectives for the second year of the project and the data gathered to assess these objectives are presented in this section. First, the objectives and data for the school site staff are presented, using the six areas described in the first section of this report (1. Administrative; 2. Guidance, 3. Instruction; 4. Evaluation; 5. Placement; and 6. Parent) as an organization schema. Then, the objectives and data for the BEH/CAM staff were presented. The numbering and categorization of objectives is the same as in my April 20, 1978 report.

Both the nature of the project's second year objectives, and the limited resources available for data collection necessitated that much of the data be gathered through interviews with site staff coordinators. Since these people were primarily responsible for their site's activities, they were the logical choice. An interview schedule was developed around the objectives in my April 20, 1978 report (reference R. A. Etter's July, 1978 report). Since only one of the two New Jersey sites responded to this instrument, only that site is reported on here.

1. Administrative

Objective 1: The school site project staff is to communicate their program with other programs in the school by including various data in reports.

The New Jersey site and one of the four Massachusetts sites reported using CAM materials in communicating to other programs in the school. Both of these sites felt that the information on children was better organized and more easily accessible as a result of CAM. The remaining three Massachusetts sites indicated that at least some CAM materials could be used in communicating with others in the school. The reason cited for not using the materials in this way was that the formal mechanism existing in the schools did not lend itself to the information provided by these materials. Informally, it was felt that guidance counselors and teachers could benefit from the materials.

2. Guidance

Objective 2: The school site project staff is to aid individual students in understanding the expectations of a potential employer by discussing the job description (task outline), career chart, GEQ, etc., with the student.

Objective 3: The school site project staff is to help the student make reasonable decisions concerning an appropriate job placement.

The CAM materials appear to be very successful in accomplishing this objective. All but one site reported using manh of the materials with a number of students. Not surprisingly, the coordinators who used the materials felt they were very helpful with some students, somewhat helpful with some others, and not much help with others. In addition to helping students understand employers' expectations, the CAM materials were felt helpful in aiding students in making more reasonable decisions about appropriate job placements. The other two coordinators felt the materials could be used in this way. Lack of time was cited as the major reason for not using them. Materials cited as most useful in accomplishing these objectives were the Task Outlines, Career Development Charts, Q-Sort, Student Summary Sheets, and Company Summary Sheets.

3. Instruction

Objective 4: The school site project staff is to use the coding scheme of task difficulties from the task outline to aid in developing learning experiences.

None of the Massachusetts sites reported using the coded task outlines; the New Jersey site reported using them in initial planning of curricula for handicapped students. Two of the four Massachusetts site coordinators felt the coding of tasks was somewhat helpful in giving them an indication of what others viewed as the difficulty of various tasks. The remaining two coordinators found no value in the coded task outlines.

Objective 5: Project materials are to aid in student acquisition of both objective and subjective knowledge about jobs.

Objective knowledge was defined as knowledge of employers' expectations. All five sites reported using CAM materials to instruct students on employers' expectations. The Task Outlines, Job Booklets, General Employability Questionnaire, Career Development Charts, Company Summary Sheets, and Q-Sort were cited by various coordinators as helpful in accomplishing this objective. The results of using these materials was generally viewed as positive.

Subjective knowledge was defined as knowledge of appropriate work habits and ability to cope with new situations. CAM materials were not used by three of the five sites to foster subjective knowledge.

In one site where the materials were used, students and the coordinator redesigned jobs with which the students felt they could not cope. In the other site instruction on specifics, such as personal grooming habits and getting along with co-workers was provided. Of the three coordinators who did not use the CAM materials to foster subjective knowledge, one felt they could be used for this purpose and two felt there were other materials available which were better suited to this purpose. Only one site reported using CAM materials to get students to describe their feelings about different work settings. The remaining site indicated that the CAM materials had the potential to be used to get students to describe their feelings. They did not use the materials for this purpose either, because they had other materials which they preferred or because time was not available for this activity. None of the site coordinators felt the CAM materials helped students accept criticism better.

As part of measuring this objective, school site coordinators were asked if CAM project materials had an impact on instruction. Only the New Jersey coordinator responded affirmatively, and his list of specific instructional impacts was quite long.

4. Evaluation

Objective 6: The school site project staff is to develop a system for follow-up on job placements.

Since all sites had some system for follow-up prior to the BEH/CAM intervention, the intent of this objective was to determine if the BEH/CAM intervention impacted on the existing mechanism in any way. If it did not, an attempt was made to ascertain whether it was because the existing mechanism for follow-up was adequate or because the BEH/CAM project did not help in this area. Three of the five sites indicated that modifications in their follow-up system came about as a direct result of the BEH/CAM project. One of the "no change" respondents felt the project and its materials were not useful for follow-up. The other "no change" respondent felt the follow-up process before the BEH/CAM intervention was adequate and not in need of change.

5. Placement

Objective 7: The school site project staff is to use the files established in the local job development phase to match job placements with individual interests and abilities.

All sites had files on students; one site developed its own system, departing from the files set up as part of the BEH/CAM project. Placements were successfully obtained at all sites, but it is difficult to assess what role the BEH/CAM project, and specifically the files, played in these placements. All but one site found uses for the files other than to aid in placement, e.g. talk with parents.

Objective 8: The school site project staff is to develop a system for keeping track of actual job placements.

The primary interest in this objective was the impact of the BEH/CAM intervention on the existing system of keeping track of job placements. Two of the sites indicated that the major modification to their system, as a direct result of the BEH/CAM intervention, was greater comprehensiveness and organization to their existing system. The remaining three sites did not modify their system as a result of the BEH/CAM intervention.

6. Parent

Objective 9: The school site project staff is to:

a. Obtain parents' perceptions of the children's social and occupational needs.

b. Compare parents' perceptions of their children's social and occupational needs with those of educators in order to identify discrepancies.

c. Discuss discrepancies between parents' and educators' perceptions in order to learn the discrepancies and best meet the needs of the student.

d. Increase parental awareness of specific employment opportunities for and requirements expected of their child.

The Q-sort was designed primarily to attain this objective. The Q-sort was not used with parents very much (only one site reported using it with parents), but was seen as valuable by most site coordinators. Limited time and limited contact with parents were cited as the primary reasons for not using the Q-sort. Parent contacts ranged from once a year to four times a year at the various sites. Parental contact, involvement, and increased parental awareness were not strong points at any of the five sites.

The remaining objectives deal with activities for which the central BEH/CAM staff is responsible.

Objective 10: The BEH/CAM staff is to develop instruments and materials that can be used in the sites to aid in the various components of the project's model.

These instruments were developed and are available in the BEH/CAM staff reports.

Objective 11: The BEH/CAM staff is to make school site staff aware of the availability and utility of the instruments and materials developed.

Objective 12: The BEH/CAM staff is to aid school site staff in their attempts to incorporate these data into their courses.

Documentation of workshop and school visits all containing dates, people present, and topics discussed exists in a log book in the possession of the central BEH/CAM staff. I have examined this documentaiton and find it to be in order and indicative of having met these two objectives.

Objective 13: The BEH/CAM staff is to maintain a National Advisory Committee comprised of experts in the field who react to the project and offer suggestions for improvements.

A list of members of this committee, their affiliations, and expertise, together with dates of meetings with this committee and summaries of what transpired at these meetings resides with the central BEH/CAM staff.

Objective 14: The BEH/CAM staff is to disseminate information about the project to a variety of interested audiences.

Presentations at the annual meetings of the Council for Exceptional Children and the New England Educational Research Organization took place in the past year. Parent meetings and discussions with interested groups at Boston College and Boston University have also been held. In addition, periodic newsletters describing the project's activities have been mailed to 200 interested parties.

Objective 15: The BEH/CAM staff is to have an external consultant conduct an evaluation of the project.

My previous reports, as well as the present document, attest to the attainment of this objective. The formative nature of much of the evaluation has been discussed in a prior section of this report called "The Evaluator's Role."

Summary of Evaluation Findings

The BEH/CAM project appears to have met with greatest success in the area of guidance. CAM materials were used to help students understand employers' expectations of them and to aid students in selecting potential jobs for which they would be well-suited. The BEH/CAM project impacted to a lesser extent in the areas of instruction and evaluation, and even less in the areas of administration, placement, and parents. The central BEH/CAM staff met all of its objectives quite well.

Although the objective by objective presentation in the previous section does not present an overwhelmingly positive picture of the BEH/CAM project, a crucial element is lost in such a presentation. Two of the six original sites were clearly favorably disposed to the project, its aims and objectives, and its materials. These two sites made extensive use of the materials and generally found them quite helpful. Two more sites seemed interested in the project and its materials but either had other materials which were used instead, or did not have the time needed to make use of the CAM materials. The remaining two sites (one New Jersey site is not reported in this document) did not appear to have much interest in the project, its objectives, and materials at all.

It seems quite clear to me that the CAM materials can be at least adequate, and in some cases quite good, at accomplishing their intended purposes. The selection of sites in which there was no full-time coordinator or lack of commitment to the project appear to have hindered the BEH/CAM efforts. If subsequent attempts at projects such as this one are to be highly successful, and there is evidence from this attempt that they can be, a more careful selection of sites is necessary. Commitment of enough staff time to use the materials to their full potential, as well as commitment to the aims of the project, are necessary ingredients for selection of a site if the project is to have any chance to achieve its maximum potential effect.

A further mitigating circumstance, which affected the potential of the BEH/CAM project, was its premature ending due to lack of continued funding. A third year of the project, after one year of the sites becoming acclimated to the materials, would have afforded a better test of the project's impact. The central BEH/CAM staff is to be commended for their commitment and constant efforts to improve the project.

Chapter IV. Conclusions

The Career Accessibility Model Project has successfully developed a model for increasing career opportunities for handicapped persons. The systematic steps of this process have proven applicable in this study to ten "national companies." The Generic Job Development process produced thirty-eight (38) career options specifically tailored for educable mentally retarded persons. Additionally, the interaction with the companies has produced a great deal of support for the idea of job redesign as a vehicle to meet affirmative action objectives of the companies involved. This attitude change has precipitated a lasting set of positive contacts between the companies, project staff, and schools, which will continue to produce greater opportunities beyond the time span of the funded project.

The model, in total, is a far reaching, comprehensive delivery system dealing with the career preparation and implementation stages of career development for the handicapped, in areas in which little work has been done. It is based on sound theoretical principles and, in at least one site has become the operating schema for an entire vocational district handicapped program (Monmouth County, New Jersey). The model enables schools to communicate more effectively with employers and with the parents of handicapped students. The specific information generated in the job development phase has proven useful as a tool in curriculum development, guidance, assessment, and placement related to career development for the handicapped. These characteristics endorse the great potential which this model has as a career education system.

Segments of the model may be used for specialized purposes in situations where the needs of a school system are such that they are not able to implement the whole process. The Generic Job Development approach is a unique and effective method of establishing a job bank, which would create greater varieties of options for increased numbers of handicapped students. The local job development aspect creates a more open communication between the local school and the employment community leading to increased cooperative education and placement arrangements. The information produced in this process model is an essential ingredient in constructing individual education plans (IEPs) for handicapped students in career education. Parents and educators have been brought together for the common purpose of helping their children proceed toward satisfying careers. The specificity of the data makes placement and follow-up evaluation a much easier task. These are but a few examples of important implications of various components of the CAM model.

One of the most unique aspects of the research was the delineation of the career pathways within specific organizations. Through the model project, staff and employers were able to construct next-step opportunities beyond entry level positions. This process was facilitated by the ability to break jobs down to task units, and see the relationships of those tasks to other jobs providing entree to both vertical and lateral mobility. This is very important in the case of mentally handicapped persons, since it provides alternatives to the dead end jobs which often have been the traditional placements for these persons.

Several educational products were developed from the CAM data, such as the Q-sort, method of parental communication, career exploration booklets, and simulation exercises. These need to be explored further, since the potential uses of such closely related instructional materials are very great. The comprehensiveness of the data (employer data, job descriptions, career development charts, social employability factors) provide a wealth of information upon which to build instructional materials. On the other hand these types of materials are the things teachers are saying they need to meet the requirements of PL 94-142 in their classrooms. It would appear, therefore, that future work could focus in that direction.

The Career Accessibility Model has been developed and field implemented within the project's funding limits. The most important next step is that the model must be subjected to more rigorous empirical testing for the purposes of validation and improvement. Educational research should take the lead from medical research and continue the research of good, tangible ideas such as CAM.

Chapter 5. Key Issues and Recommendations

Several key issues emerged from analysis of ICR's experiences in developing the Career Accessibility Model. These are summarized in an article in the Fall 1978 issue of OPTIONS (Appendix M), which is reprinted here.

Work experience programs represent viable learning alternatives for many students with special needs. After two years of in-depth study of, and direct involvement with, special needs work experience programs in Massachusetts and New Jersey, our staff has identified several areas which are of common concern among school systems initiating this educational approach. Some key issues are discussed below.

Administrative Support

Support for special needs work experience programs must emanate from the highest administrative levels. Explicit school system policies should provide coordinators and teachers with the time, resources, and flexibility to develop suitable employment options, and to provide adequate preparation, guidance, and placement for special needs students.

Superintendents, directors of special education, and principals must also provide direct leadership in articulating work experience goals with the goals of other school programs, developing team work among staff members, and ensuring that continuous formative evaluation occurs within the program.

Full Time Coordinator

The most crucial factor in the success of special needs work experience appears to be the establishment of a full-time program coordinator. An extraordinary amount of time is absolutely necessary for the adequate performance of this role, which includes: (1) planning and implementing strategies for developing business contacts and dealing with negative employer attitudes; (2) analyzing work settings and accumulating relevant employment data; (3) matching student capabilities with available employment options and assisting students in the selection of appropriate work experiences; (4) coordinating related instruction in conjunction with other staff members; (5) arranging, supervising, and evaluating student placements.

Given the time demands of these and other tasks, a full-time coordinator for every 10 to 15 students does not appear unreasonable.

Program Organization

A planned, organized program provides both internal and external benefits. Careful documentation and storage of company contacts, job descriptions, career development charts, student profiles, and outcomes of prior placements, facilitates the overall process of matching students with work that fits their capabilities. An orderly, consistent process of interaction with employers provides a framework in which school personnel are perceived as "having done their homework."

The ability of coordinators to articulate clearly the true capabilities of special needs students, and the supportive nature of the school programs maximize the chances of gaining employer cooperation.

Relevancy of Methods and Materials

Methods and materials used in instruction and guidance of special needs students in regard to potential work experiences should be closely related to real options for students in the program. Data derived directly from work settings within a local community are useful in preparing staff persons who teach and counsel students directly. Class activities which utilize relevant methods and materials can stimulate student interest and understanding of career options which are available to them in their immediate community.

Parental Involvement

Providing parental involvement in the planning and implementation of spcial needs work experience programs not only meets legal requirements (e.g. PL 94-142), but also adds an invaluable resource. Clarification of parents' roles, and clear specification of how they can contribute is absolutely necessary.

Numerous issues will surface when school systems initiate work experience programs for special needs students. Those discussed above will certainly be among the most prominent.

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Final Report

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A CAREER ACCESSIBILITY MODEL FOR SPECIAL NEEDS INDIVIDUALS

APPENDICES

November, 1978

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Education for the Handicapped

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APPENDIX A

Review of Literature for BEH Project
The Career Access Model for Special Needs Students - Some Theoretical Principles

REVIEW OF LITERATURE FOR BEH PROJECT: NEW CAREER ACCESS MODEL FOR EDUCABLE MENTALLY RETARDED

SECTIONS I - IV

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March, 1977

INTRODUCTION

The purpose of this document is to provide a conceptual framework into which literature relevant to the New Career Access Model for the Educable Mentally Retarded may be assimilated.

Section I highlights significant changes regarding mental retardation as a result of social, scientific and legal developments in the last 60 years.

Section II is a comprehensive review of research concerning the social and occupational adjustment of educable mentally retarded persons. Instructional considerations of the social/employability needs of EMR's are derived from this section, and briefly discussed in Section III.

Section IV reviews a number of factors affecting job placement for the mentally retarded including the job market and employers' attitudes. This section concludes with a theoretical delineation of two distinctly different approaches to generating jobs for the mentally retarded.

Within the context of Sections I-IV, a fifth section, describing the New Career Access Model, will be submitted later. The model will flow directly from the type C approach explained in Section IV.

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I. BACKGROUND

During the last 55-60 years, Americans have grown increasingly more knowledgeable about and sensitive to the problems of mental retardation. Bio-medical research and socio-cultural studies have contributed greatly to this understanding. Concerned organizations, such as the Kennedy Foundation, and government involvement through the President's Committee on Mental Retardation, have sustained a steady flow of information that continues to heighten public awareness of this issue.

In the early nineteen hundreds, state run institutions provided a primarily custodial service to inmates who were literally shunted out of the mainstream of society. Today, state schools, public and private agencies and clinics, as well as numerous public school systems, offer programs designed to help the mentally retarded integrate into the mainstream of society. Laws and regulations exist to protect the rights of the mentally retarded and nationally oriented businesses, such as Woolworth, Howard Johnson and Marriott Hot Shoppes have actively pursued the hiring of EMR's (Brolin, 1976).

Some of the major changes of the last 60 years are discussed below.

A. CRIME AND HEREDITY

At the turn of the century, the consensus among professional and lay persons alike was that mentally retarded individuals were predisposed to a life of crime and depravity (Goldstein, 1964). This thinking was supported by a number of studies (Fernald, 1893; Bancroft, 1901; Goddard and Hill, 1911; Enyon, 1913; Knollin and Terman, 1918) which indicated that anywhere from 12 to 60 percent of criminals and delinquents were mentally retarded.

Another prevailing belief was that mental retardation is a completely hereditary phenomenon. The Mendelian revival in biology provided an impetus to this view. Meanwhile, the doctrine of Social Darwinism, and the nation's rugged individualist tradition created a favorable climate in which the practice of isolating the mentally retarded from society was believed to serve both a preventive and a protective function. Despite pockets of contradictory evidence (Pearson, K. and Jaederholm, G.A., 1914), the use of sterilization to interrupt what was thought to be the sole cause of mental retardation (i.e., defective genetic material) was adopted in thirty states. In 1927, this therapy was even endorsed by Justice Holmes, who in affirming the constitutionality of a Virginia law, remarked, "Three generations of imbeciles are enough." (Buck vs Bell, 274, U.S. 200).

B. NEW EVIDENCE

In recent years, refinements in biological and behavioral research methods have yielded new evidence and insights. For example, Goldstein (1964) gives several possible explanations for the wide range of percentages reported for mentally retarded delinquents.

a. Psychometric instruments, which were just being developed, differed among researchers.

b. Different criteria were used to define such terms as "mentally retarded" and "juvenile delinquency."

c. A wide range of statutory differences often led to classifications of mental retardation in some states which would not have occurred in other states.

Concepts in genetics and child development have changed radically. We now know that:

a. The chances of having a mentally retarded child are 1 in 30;

b. Eighty to 90 percent of mentally retarded individuals are born to normal parents;

c. With one normal parent the chance for a normal offspring is 88%;

d. While the etiology of some forms of mental retardation, e.g., Down's Syndrome, can be traced directly to genetic causes, approximately 85% of all causes are unknown and are classified as cultural-familial. (Brolin, 1976; Friedman, 1976.)

It is also true that: 1) 2/3 of all children originally classified as mentally retarded lose the label during late adolescence or early adulthood; 2) no evidence has ever been produced showing a greater inclination for crime on the part of the mentally retarded; and 3) most (with some training) are capable of living and working in society.

C. WHAT IS MENTAL RETARDATION?

The definition of mental retardation has changed as more and more evidence has accumulated. Today, three major concepts must be addressed to provide a comprehensive perspective - intelligence, adaptive behavior and human development.

The definition given by the American Association of Mental Deficiency (AAMD) is widely acknowledged. In 1959, the AAMD defined mental retardation as follows:

> "Mental retardation refers to subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in one or more of the following: (1) maturation, (2) learning and (3) social adjustment." (Hutt and Gibby, 1965.)

In 1973, the AAMD published the following definition in its *Manual on Terminology and Classification of the Retarded*:

> "Mental Retardation is characterized by a significant, subaverage general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period. (Brown, 1976.)

"Significantly subaverage" refers to performances on standardized tests. An IQ score that is two standard deviations below the mean is considered the cut-off point for mental retardation. This level formerly was one standard deviation below the mean (84).

The following groupings are used (Brolin, 1976):

IQ	
69 - 84	Borderline Intelligence (Formerly Borderline Retardation)
52 - 68	Mildly Retarded
36 - 51	Moderately Retarded
20 - 35	Severely Retarded
0-19	Profoundly Retarded

"Deficits in adaptive behavior" are determined by assessing the level of personal interdependence and social responsibility attainable by the person. Attempts are then made to relate these factors to the individual's age and cultural group. While subjective judgements are often required for this determination, two tests commonly used to evaluate this component are:

1. The Adaptive Behavior Scale
2. The Vineland Social Maturity Scale

The "developmental period" now extends to 18 years old, an increase from 16. The work of Piaget in developmental stages of intellectual growth, plays a significant role in this aspect of the overall determination. (Inhelder and Piaget, 1958.)

Approximately 3% of the general population is considered mentally retarded and 89% of this number fall into the mildly retarded group.

Notice that an individual is considered mentally retarded only if he is deficient in both the intelligence tests and the adaptive behavior analysis. Clearly if this definition were applied to previous research, statistics on mental retardation would have been greatly altered.

D. CAUSES AND CLASSIFICATION

Over 200 causes of mental retardation have been identified (Brolin, 1976; Friedman, 1976). The following classifications are generally used:

1. Infection and Intoxification (e.g., rubella or syphilis).
2. Trauma or Physical Agents (e.g., encephalitis due to prenatal or postnatal injury).
3. Disorders of metabolism or nutrition.
4. Gross postnatal brain disease.
5. Chromosomal abnormalities (e.g., Down's Syndrome).
6. Premature birth.
7. Environmental influences; cultural-familial reasons (e.g., lack of proper mothering, lead poisoning).

E. EFFECTS OF THE ENVIRONMENT

Evidence concerning environmental effects indicates a disproportionate incidence of mental retardation within the lowest socio-economic strata of contemporary society. Haywood (1970) stresses as possible causes the "low levels of absolute stimulation" and "gross undifferentiated stimulation" in the early developmental period. Homes where the child is given little attention, or there is an absence of order, organization, planful regularity, predictable structure of task orientation, are associated with subsequently impaired cognitive function (low IQ).

In the early decades of this century psychometric tests were used almost exclusively to determine retardation. Present day application of developmental theories concerning the interrelationship of the individual and his environment has introduced many new hypotheses about the causes of mental retardation. These latter views suggest the need for an interdisciplinary approach to the solutions of the problems of the mentally retarded. Indeed business, law, education, etc., must work in concert to protect and support this minority among our citizens.

In many ways, the law has had the most dynamic impact on our society in regard to mental retardation.

F. SOME LEGAL ASPECTS

Major developments in the legal arena have occurred in the seventies. Decisions in federal courts have led to the repeal or reform of numerous state statutes and the creation of federal laws. As a result, many new programs and opportunities are continuing to develop.

Several key cases are summarized here. (Friedman, 1976.)

1. Larry P. v Riles, 343, F-Supp 1306 (1972).

   In this California case, the court ruled that due process must be provided each individual before a label is applied to an alleged deficiency.

2. Wyatt v Stickney, 344 F-Supp 387 (1972).

   This Alabama case led to a federal ruling that a civilly committed mental retardate has a right to habilitation (defined by the court as a process of achieving the highest level of personal functioning). Other parts of the ruling involved 5th Amendment (due process), 8th Amendment (cruel and abusive treatment), and 14th Amendment (due process, equal protection) rights, and provide the basis for much of the litigation that has occurred since.

3. Pennsylvania Association for Retarded Children v Pennsylvania 334, F-Supp 1257, 1259 (1973).

   Here the court ruled that no mentally retarded child may be denied admission to a public school program or have his educational status changed without first being accorded notice and the opportunity for a due process hearing.

4. Mills v Board of Education, 348 F. Supp 866 (1972).

   In this case, the federal court ruled that the exceptional children of Washington, D.C. were guaranteed the right to education by the due process clause of the 5th Amendment. On the question of sufficient financial resources that court stated:

   > "If sufficient funds are not available to finance all of the services and programs that are needed and desirable in the system then the available funds must be expended equitably in such a manner that no child is entirely excluded from a publicly supported education consistent with his needs and ability to benefit therefrom."

The Supreme Court itself has never declared that education is a right guaranteed by the U.S. Constitution. However, lower court rulings such as those cited above, as well as decisions by state supreme courts, have encouraged a number of state laws for the handicapped. Massachusetts' comprehensive "766" legislation embodies the spirit and requirements of several rulings by guaranteeing due process, encouraging individualized programs and appropriating monetary reimbursements.

At the federal level:

-PL93-380 requires all states receiving federal aid to their schools to provide an appropriate education for all the handicapped children in the state.

-PL94-103 offers monetary assistance for the development and implementation of plans to eliminate inappropriate institutional placement.

-PL94-142 calls for direct funding to school districts to insure that by 1981, all children, ages 3 to 21, identified as handicapped will be receiving "free appropriate public education." (Friedman, 1976.)

In regard to employment, the Rehabilitation Act of 1973 grants a statutory right to the handicapped to be free from employment discrimination and requires employers having contracts of $2500.00 or more with the government to take affirmative action to employ qualified handicapped persons.

Against this background of change, the next section focuses on the social and occupational adjustment of the mentally retarded.

II. SOCIAL/OCCUPATIONAL ADJUSTMENT

Follow-up studies concerned with the community adjustment of the mentally retarded can be classified into several groups.

1. Individuals released from state institutions.
2. Persons formerly in special needs classes.
3. Persons treated in community clinics.
4. Individuals released from rehabilitation centers.
5. Former students in work study programs.

Over the years, research methods have become more and more sophisticated, refining criteria, introducing control groups and factoring out critical variables. The order of classifications from formerly institutionalized persons to work study graduates, reflects the changes that have occurred in programs for the mentally retarded. Knowledge concerning the successful and unsuccessful adjustment of mental retardates has been applied in numerous workshops and school curriculum over the past 10-15 years. As school districts increase their involvement in the preparation and placement of the mentally retarded in the world of work, curriculum will incorporate more and more of the characteristics revealed by the last 55 years of research.

A. THE FERNALD STUDY

In 1919, Dr. Walter E. Fernald conducted the first recorded investigation of the careers of formerly institutionalized retardates (Goldstein, 1964). The subjects of Fernald's study were individuals who left the Waverly State School (of which Fernald was the director) during the period 1890 - 1914. To the surprise of most professionals, including himself, the adjustment of the 646 discharges was remarkably favorable. Sixty-four percent of the males and 52% of the females Fernald reached had remained in the community, and held a variety of skilled and unskilled jobs. Reports of anti-social behavior were low in number. Fernald's work raised a serious question that persists to this day.

> "If some mentally retarded persons with serious records of misbehavior who have been discharged from the institution under protest of the administration can make adequate adjustment in their communities despite minimal training, chance placement and chance supervision, what might be expected of those who receive relevant training, selective placement and supportive supervision?" (Goldstein, 1964.)

B. FOLLOW-UP STUDIES

Fernald's (1919) study was followed by several others (Matthews, 1922; Storrs, 1924; Foley, 1929) that supported the notion that retardates are capable of satisfactory adjustment to the community. At this time, state institutions began initiating programs to prepare inmates for their release into the community.

Subsequent research was concerned with following up individuals who (a) had been in institutions such as Laconia State School (Little and Johnson, 1932), Senoma State Home (Wardell, 1946), Newark State School (Wolfson, 1956) and Pacific State Hospital (Windie Steward and Brown, 1961); (b) had been in special needs classes such as those in the Springfield, Massachusetts Schools (Thomas, 1943) and a British residential school for educable subnormal children (Duncan, 1942); or (c) had been treated in community clinics (Kinder and Rutherferd, 1941, Lurie Schlam and Frieberg, 1932).

Goldstein (1964) reports over 30 studies of this kind (between 1930 -

1960) which assessed such common variables as: a) occupational status; b) income; c) self support; d) police records; e) nuisance reports; f) marital status; and g) effects of IQ.

Heber and Dever (1970) summarize Goldstein's excellent review of the literature.

1. A considerable percentage of retardates with IQ's over 50 achieved employment.
2. Job success appears to be more closely related to attitudinal and personality factors than to IQ.
3. Retardates performed and retained jobs as well as non-retarded persons doing the same work.
4. The jobs held by retardates were mainly in the unskilled category.

Answering Fernald's original question, Goldstein (1964) emphasized that the majority of the higher grade mentally retarded will make a relatively successful adjustment to their communities when "training, selection, placement and supervision are all at an optimum."

C. COMPARATIVE STUDIES

Because of the difficulty of matching and sampling, very few studies attempt to compare mentally retarded with normal persons in analagous roles. Goldstein reviews 3 major pieces of research that do provide comparisons (Baller, 1936; Fairbanks, 1933; and Kennedy, 1948). He bases his analysis on criteria such as: a) employment status; b) economic status; c) marriage status; d) dependency and relief; e) kinds of aid; and f) court records. Despite the dissimilarities of the study years and locations (Baller - Lincoln Nebraska; Fairbanks - Baltimore, Maryland; Kennedy - Millport, Connecticut), these authors agree on much of their data as well as the data from other research.

Goldstein draws these conclusions:

1. The majority of higher grade mentally retarded persons will make an acceptable adjustment in their communities.
2. Higher grade mentally retarded persons are hard hit occupationally in times of economic depression. While they appear to lose out in steady jobs, they get more of their share of part-time jobs.
3. Economic conditions, community facilities and local practices, seem to determine the participation of the mentally retarded in such affairs as home ownership, dependency on agency assistance, recreation and leisure time activities.
4. Occupationally, the mentally retarded appear to cluster at the unskilled and semi-skilled end of the scale. (Goldstein, 1964.)

D. EFFECT OF THE ENVIRONMENT ON ADJUSTMENT

According to Goldstein, two areas of study are consistently missing from the research. These are: 1) the relationship of community tolerance to success or failure in community adjustment and 2) changes, if any, effected by a non-institutional environment on parolees.

Marchand (1956) conducted a study of ex-inmates of Newark State School. His findings, while inconclusive, appear to substantiate the work of a number of researchers on foster homes which show that:

> "Generally, activity and stimulation in the environment appear to be related to positive change in mental status while an impoverished stultifying environment appears related to negative change."

Marchand's findings indicate that there may be factors operating in the adult retardate's environment with similar effect. Work-study arrangements and efforts to involve the family in programs for the mentally retarded rest upon these very assumptions.

E. THE ISOLATION OF SPECIFIC VARIABLES

Several researchers in the late fifties and early sixties worked to isolate a set of criteria for selecting, training and placing mentally retarded persons. Besides psychometric and demographic data, they analyzed such subjectively determined characteristics as ability to get along with others, attitude, personal appearance, personality, interests and others.

Shafter (1957) studied 205 persons, 111 who had had successful adjustments after being paroled from public institutions and 95 who were considered unsuccessful. Successful adjustment was defined as complete discharge, and unsuccessful as returning to the hospital (due to some fault on the part of the parolee). Shafter objectified a number of characteristics which did not contribute to predicting successful adjustment after parole. These included clinical impressions of the examining psychologist, family characteristics, IQ, age at discharge, behavioral record while an inmate, self care attributes and length of institutionalization.

Shafter found the following 12 release characteristics significantly differentiated successful from unsuccessful parolees as groups:

> (1) Record of behavior; (2) record of escapes; (3) record of quarrelsomeness in the institution; (4) predisposition toward quarrelsomeness; (5) aggressiveness in the institution (successful group less likely to fight); (6) truthfulness; (7) ambition; (8) obedience; (9) attention to habits and personal habits (carelessness); (10) 5 year record of punishments in the institution; (11) history of stealing and (12) quality of work in the institution.

It is noteworthy that while all of these characteristics differentiate between successful and unsuccessful parolees as groups, seven do not discriminate between successful and unsuccessful individuals. These seven are 1, 2, 3, 7, 10, 11, 12. (Goldstein, 1964.)

From this data Shafter formulated a prediction table which he found 66% accurate.

Kolstoe (1961) compared two groups of 41 each, who were former clients of an employment evaluation and training center. His objective was to examine factors that discriminated between employed and unemployed mentally retarded males.

Kolstoe examined three broad areas: (a) background; (b) performance on evaluation tasks; and (c) employer ratings. He obtained the following results:

1. Home background - no significant differences, except that family support did affect employment adjustment.
2. Age - no significant difference.
3. IQ - no significant difference, but did not relate IQ to job complexity.
4. Physical characteristics - found better chance for employment if better physical appearance, good general health; tendency toward clumsiness or visual weakness was not a hinderance while hearing problems were; superior work skills made difference.
5. School experience and academic achievement - no relationship found between academic achievement and employment.
6. Personality and social characteristics - employers placed great stress on cheerfulness, cooperation with supervisor and other employees, respect for supervisor, ability to mind own business, being on time, showing initiative.
7. Rural versus urban background - no significant difference found.
8. Vocational skills and work habits - employed were superior to unemployed in tasks involving assembly, sorting, manipulation, packaging and the use of hand tools as well as understanding the work, quality of work, showing initiative.

Kolstoe urged the translation of these findings into school programs.

Dinger (1961) studied jobs held by former students at the Polk State School and spoke to the employers. His purpose was to determine what qualities of personal, social, occupational and academic training are needed for success on those jobs. Dinger found that employers were quite impressed with the personal qualities of their mentally retarded workers, especially their effort, punctuality, dependability, speed of working and courtesy. The employers even offered to help train more like them. Dinger points out that the employers did not regard these adults as retarded - only as dependable, desirable employees.

Dinger also interviewed these former students to determine what needs they felt should be addressed in the school's curriculum. Their main ideas are listed here:

1. Using bank services.
2. Job opportunities and employment procedures.
3. Dating, engagement and preparation for marriage.
4. Family health.
5. The fundamentals of insurance.
6. Budgeting techniques.
7. Military service.
8. Shopping techniques.
9. City, county and state agencies.
10. Credit buying.
11. Renting and purchasing of housing.
12. Grooming.

The preceding researchers have greatly contributed to a general understanding of the complexity of factors involved in the adjustment of mental retardates. Still, no known factors appear capable of accurately predicting the success or failure of retardates who were given vocational placement opportunities (Clark, 1973). Nevertheless, recent studies have concentrated on and expanded the understanding of a number of concepts which have great implications for educational programs.

F. ON INTELLECTUAL FUNCTIONING

The influence of general cognitive abilities (IQ) on the adjustment of mental retardates has long been a subject of inquiry. Goldstein (1964), Kolstoe (1961) and Shafter (1957) found no significant relationship between IQ and occupational adjustment.

Sali and Amir (1971) studied 305 retarded workers employed in residential insitutions or sheltered workshops. They found a low correlation between IQ and performance at work and a high correlation between personality characteristics and performance.

Kidd, Cross and Higgenbotham (1967) in a follow-up study of 209 students who had graduated from a school district in St. Louis County, Missouri, found no relationship between IQ and job holding abilities.

Jackson's (1973) study of 95 EMR's who were ex-pupils of Special Schools in Edinburgh found that both performance and verbal measures of ability had short-term predictive value.

Vande Garde's (1970) review of literature on the stability and reliability of intelligence scores, especially the longitudinal studies done by Baller (1967), resulted in the following implications.

1. Research indicates intelligence cannot be directly related to vocational success or failure.
2. Retardates possess convergent and divergent thinking, just as normal students, and both measures are related to their success.
3. Intelligence is but one of many factors working to facilitate or inhibit a retardate's adjustment.

The need for multi-variate analysis of the adjustment problems of the mentally retarded is evident in the work of Kaufman (1970) and Song and Song (1969).

The former researcher using the WAIS (Wechsler Adult Intelligence Scale) was able to discriminate significantly between employed and unemployed mental retardates. The WAIS is an instrument which combines common sense judgement and experience with "pure" cognitive functions.

Song and Song (1969) found no significant relationship between intelligence and vocational success. They suggest that because a consistent relationship appears to exist between cognitive work and personality and demographic variables and vocational adjustment measures, one should never consider one variable at a time but should consider several variables simultaneously.

C. ON SELF CONCEPT

In their comparison of 42 EMR's with 49 nonretarded adolescents in a suburban city of Missouri, Burger, Collins and Doherty (1970) hypothesized that the EMR group would have more negative self-concepts than nonretardates. Their results showed significant differences for the variables of self criticism, identity, social self, family self and moral/ethical self scales. No significant differences were found on self satisfaction, behavior, physical self and personal self scales.

Ayers (1969) lists negative self concept among a long list of adjustment problems for EMR's.

Vande Garde (1970) makes the following points.

1. The retardate's self concept plays a crucial role in his adjustment socially, emotionally and vocationally.
2. Many variables are related to personal success, such as mental and physical health, mental maturity, self-concept, emotional stability and interpersonal relations.
3. A retardate's negative self concept is often related to negative parental attitudes.

H. ON FAMILY SUPPORT

Since family attitudes toward mentally retarded persons are entwined with psychological variables involved in successful adjustment (Kolstoe, 1961) some writers have emphasized the role of the family. Parnichy (1964) urged counseling for the family as an essential facet of the service required to meet the needs of an EMR.

Brolin and Wright (1971) in a study of 229 former clients of the Development Evaluation Center at the Central Wisconsin Colony and Training School found family influence to be a very important variable in relation to the implementation of recommendations concerning social, medical, psychological and vocational concerns. Brolin (1976) maintains that parental rejection, overprotection, abuse, neglect and discord, present severely negative environments for the retardate. Conversely, he feels that family acceptance, stimulation, marital stability and general family cohesion, can greatly aid the retarded individual's growth and development.

Vande Garde (1970) states:

1. Parental attitudes are significantly related to the retardate's adjustment vocationally.
2. Family support plays a crucial role in the retardate's attitude toward himself and his job.

I. ON GOOD WORK HABITS

Chaffin's (1969) study on production rates supports Dinger's (1961) finding that employers are concerned about work performance when evaluating their mentally retarded workers. He found every case subject judged successful by an employer had a higher production rate than the EMR with whom he was paired.

J. ON ABILITY TO LEARN

Evaluating a NYC summer enrollment program of 357 educable, trainable and brain damaged elementary and secondary school children, Joiner et al (1972) reported significant gains achieved in all program areas except physical fitness.

The Braginsky and Braginsky (1971) data from research on the mentally retarded, conducted in state training schools, showed retardates to be "intelligent human beings, able to carry out subtle manipulative strategies, control and exploit their somewhat hostile environment and maintain their belief that they were not particularly stupid or different, even in the face of the staff's opposite views."

K. ON SIGNIFICANCE OF TRAINING

A number of studies (Gregory, 1967; Groelle, (1967); Kokasha, (1968) have substantiated the Goldstein (1964) position that, with training, EMR's can learn and be properly placed in the community.

Strickland (1967) reported that 80.2% of the EMR's in a co-op program of Special Education and Vocational Rehab Centers in Texas secured employment.

Kidd, Cross and Higgonbottom (1967) found that 81% of the EMR's in a St. Louis County program had a favorable work adjustment.

Chaffin (1971) found that the work study program he was involved with enhanced employability.

L. ON MALADJUSTMENT

In the studies since Fernald (1919), researchers have reported varying percentages of successful social and occupational adjustment. Despite many successes, a substantial amount of maladjustment has taken place due to the socio-psychological factors outlined above.

Windle (1962) reported that 60% of discharged institutional residents from a California State School failed to stay in the community. Reasons given included inadequate interpersonal relations, inadequate vocational performance and anti-social behavior.

In 1969, the President's Committee on Mental Retardation reported 36% of EMR's dropped out of a government training program, mostly because of social adjustment problems.

Eagle (1967) reported 39.6 failures for 436 releases from institutions he studied.

Tobias (1970) indicated that unemployment for retarded males in NYC was 41%, for females, 71%.

A Portland School District (1968) program for placement of EMR's reported that only 32% had satisfactory job placements.

Brolin et al (1975) followed up 71 former educable retarded students in a large city. Twenty-one percent had an average or above vocational adjustment, 35% had a fair adjustment and 44% had a poor adjustment.

Olshansky and Beach (1974) found that only slightly more than half of 237 former workers in their rehabilitation workshop were found to be working a year or more after placement.

Heber and Dever (1970) summarize research on education and habilitation in this way:

> ". . . the picture portrayed by recent analyses of the status of graduates of special classes as well as of persons discharged from institutions, is not a bright one at all. They appear to be at the

> lowest points on the scales of social and occupational adjustment. They do not, as so often is stated, adjust as well in adult life as do their nonretarded age peers who live in comparable neighborhoods."

These authors point out the difficulty of gaging institutional and special education programs because so few studies have been done on retarded who were never identified and specially treated as such.

Albizv, et al (1966), while studying Puerto Rican society, analyzed each of its six socio-economic communities and defined a group of retarded individuals who had never been identified and treated. Studying the successful and unsuccessful among this group, these researchers found that the more complex the society (Agrarian v Industrial), the more difficult it is for the retardate to adjust.

While research continues on all of the areas discussed in this section, it is clear that our schools should provide programs that address the key variables that have already been identified as associated with the adjustment of the mentally retarded.

III. THE ROLE OF PUBLIC EDUCATION IN CAREER PREPARATION

The response of public education to the vocational needs of the mentally retarded has taken many forms during recent years. From a pilot program on occupational needs by the Union Township Board of Education in New Jersey (1970) to the computerized information management system for EMR work studies program adopted by the Columbia County Board of Education in Lake City, Florida (1973), instructional plans revolving about the social/employability factors described in Section II exemplify much diversity. Programs to prepare EMR's to cope with the reality of vocational problems have been developed by the state departments in Connecticut (1972), New Jersey (1970), Georgia (1971), Indiana (1971), and North Carolina (1971). School systems in Atlanta, Georgia (1971), Buffalo, New York (1960), Indianapolis, Indiana (1975), Bristol City, Pennsylvania (Henry, 1972) and Fort Worth, Texas (Suo and Willemin, 1969), have adopted curricula that contain some, if not all, of the important concepts that are mentioned in Brolin's (1976) Competency Based Career Education Program for EMR students.

A. BROLIN'S WORK

Drawing upon much of the research cited in Section II, Brolin has proposed that three primary curriculum areas and one support area should make up a secondary program for EMR's. The three primary areas are (1) daily living skills, (2) occupational guidance and preparation and (3) personal social skills. The fourth curriculum area that should be considered supportive to the other three is academic skills. Brolin recommends 22 major competencies as the most important ones for EMR students to acquire before learning the secondary program.

These 22 competencies are:

Daily Living Skills

1. Managing family finances.
2. Caring for and repairing home furnishings and equipment.
3. Taking care of personal needs.
4. Raising children and family living.
5. Buying, planning and preparing food.
6. Selecting, buying and making clothing.
7. Engaging in civic activities.
8. Utilizing recreation and leisure time.
9. Getting around the community.

Personal - Social Skills

10. Attaining a sufficient understanding of oneself (self awareness and appraisal).
11. Obtaining a positive self confidence, self concept.
12. Desiring and achieving socially responsive behavior.
13. Choosing, developing and maintaining appropriate interpersonal relationships.
14. Achieving independent functioning.
15. Making good decisions, problem solving.
16. Communicating appropriately with others.

Occupational Guidance and Preparation

17. Knowing about and exploring job possibilities.
18. Selecting and planning the most appropriate occupational choice(s).
19. Exhibiting the necessary work habits required in the competitive labor market (work behaviors)
20. Developing the necessary manual skills and physical tolerances required in the competitive market (physical-manual skills).
21. Obtaining a specific and salable entry level occupational skill.
22. Seeking, securing and maintaining jobs appropriate to level of abilities, interests and needs (job adjustment).

Whether one uses concepts such as "life centered" programs (Brolin, 1975), "persisting life situations" (Blessing, 1970), or "normalization" (Wolfensberger, 1972), school activities that teach the competencies that Brolin has listed seek to prepare the EMR student for a proper adjustment in the world of work.

B. ROLES OF TEACHERS AND ADMINISTRATORS

To change the curriculum traditionally offered to EMR's will require training and development of the professional staff. Brolin (1971) has developed a number of in-service programs designed to assist in the preparation of teachers.

Pappanikov and Carroll (1971) recommend a formalized training program for administrators of residential facilities. While this role is somewhat different than that of a superintendent of a public school system, the areas of study deemed important by these researchers are in many ways equally important to both. They include: 1) Business Administration, 2) Public Relations and 3) Psychology.

The next section considers the various aspects of job placement and the natural roles of business and education.

IV. CRITICAL FACTORS AFFECTING JOB PLACEMENT

A. WHAT KIND OF JOBS ARE HELD BY RETARDED INDIVIDUALS?

Several authors (Oswald, 1968; Fenton and Thompson, 1967; Peterson and Jones, 1964) have identified a wide variety of jobs for which mentally retarded persons are qualified. The President's Committee on Employment of the Handicapped (1969) has also published a list of over 100 jobs which are considered feasible. They range from vegetable peeler to gas station attendant. It is important to note that many of these job titles are derived from Civil Service Commission records reflecting the development of jobs as a result of efforts by government. While the listings primarily include unskilled and semi-skilled occupations, some authors (e.g. Kidd, Cross and Higgonbottom, 1967) report more highly skilled jobs within the range of mental retardate attainability, e.g., heavy equipment operator, mechanic, electric appliance repairperson and key punch operator.

B. THE POTENTIAL AND OPPORTUNITIES OF MENTAL RETARDATES IN THE JOB MARKET

Whether or not an adequate number of job opportunities will be available to the mentally retarded is a continuing point of debate among writers on the subject. As reported earlier, Goldstein (1964) found that "mentally retarded persons are hard hit occupationally in times of economic depression." Farber (1968) argued that EMR's are "surplus" population and are generally marginal workers whose employment depends on demands of the labor market. He wrote:

> "Only when demands for full employment of the potential work force are sustained can the mentally retarded population anticipate a willing reception of its limited talents in factory service or agricultural occupations."

Recently, George Will (Boston Globe, 1/18/77) commented that: "a rapid rate of economic activity tends to produce shortages of skilled workers before it produces a substantial reduction of unemployment among unskilled workers."

Economic arguments such as these are countered by more optimistic writers who feel most retarded persons have the potential, if properly trained, to develop far beyond their present ability levels.

Brolin (1976) summarizes several points found in the articles of Olshansky, 1969; Katz, 1968; Wolfensberger, 1967; DiMichael, 1967; and others.

1. The retarded have untapped potentials for achieving higher levels of personal, social, and occupational functioning than they are presently achieving.
2. Research has indicated how little we know about the retarded's abilities.
3. Given the opportunity and better training programs, the retarded individual can reach an increasingly higher level of performance than was earlier thought attainable.
4. What has limited the performance of many retarded persons is not their intellectual inability but rather a lack of appropriate opportunities.
5. There are thousands of jobs potentially appropriate for the retarded in state and federal governments.
6. Appropriate training techniques and the discovering of occupations the retarded can perform are the key to their being able to compete effectively in the labor market of our economy.
7. As long as the worker of normal potential is upgraded faster than or as fast as automation develops, work should be available for the retarded.

The following researchers support the notion that jobs will be available:

Peterson and Jones (1964) surveyed over 2000 items of literature. They concluded that placement in competitive work can be expanded into other jobs within each field and into other occupational fields.

DiMichael (1967) indicates that increases in government service employment is making it possible to bypass written examinations, previously a barrier to the employment of the retarded.

Fenton and Thompson (1967) report that 1300 jobs, consisting of 54 different job titles, exist in New York's civil service system. These jobs exist in both skilled and unskilled categories where there is a high turnover. These authors feel that these same job opportunities undoubtedly exist in all cities, towns and villages, throughout the nation.

Despite these predictions, Edwin Martin (1972), focusing on the reality of job opportunities, estimated a gloomy vocational future for handicapped students leaving the school system in the period 1972-1976. Martin forecasted that only 21% of these students will be employed, 40% will be underemployed, 26% will be unemployed, 10% will be in sheltered or family settings and 3% will be totally dependent.

Finally, Halpern (1973) challenges the contention that general community unemployment always has an adverse impact upon job opportunities for retarded persons. Based on two major studies conducted by the Rehabilitation Research and Training Center in Mental Retardation at the University of Oregon, he concluded:

1. When the level of community unemployment is high, it will be very difficult for mentally retarded persons who are new in the labor market to find jobs.

2. When community ecomomic conditions deteriorate, mentally retarded workers are not necessarily in jeopardy of losing their jobs.

3. Mentally retarded persons who are assisted by well-structured vocational training programs have a good chance of finding jobs, regardless of the level of general community unemployment.

Halpern concluded that the mentally retarded are not necessarily the losers in hard times.

C. ON SOCIETAL ATTITUDES

The attitudes of employers and educators toward the needs of the mentally retarded have become increasingly more positive during this century. How they respond today and in the future may be the key to whether or not Edwin Martin's predictions of future vocational difficulties will come true.

DiMichael (1967) finds reason for hope in the fact that the National Association for Retarded Citizens, has opened up opportunities with Howard Johnson, Sears Roebuck, Woolworth and many other large and small companies who have adopted policies of hiring the retarded. He feels that many people become pessimistic because they hear more about the elimination of jobs by automation and not about the many appropriate new jobs being created. Nayowith (1970) feels that since employers have started hiring retarded persons, attitudes toward hiring them have changed.

It is probably safe to say that while attitudes are changing ever so slowly, misconceptions about the potential of the retarded probably still predominate the thinking of most employers and educators. Olshansky (1969) points to five assumptions about the mentally retarded, which continue to be hinderances to alternate approaches to expanding the job market for this segment of our population (Page 35, Brolin, 1976).

1. That we know the level of intelligence required for different types of jobs.
2. That a slow learner is a poor learner.
3. That intelligence is a constant and global quality rather than one reflecting different situations and requirements and changes at different points in time.
4. That the retarded person is able to tolerate boring tasks better than normal persons.
5. That all retarded persons have the same personality.

Kelley and Simon (1969) discuss the misconceptions held by many employers whom they indicate are still doubtful about hiring the retarded. These authors contend that while employers go along with the idea in principle, they also harbor many reservations about the retardate's ability to be as productive as others, as well as his training needs, supervision requirements, physical endurance and safety records.

Brolin (1976) finds societal attitudes continuing "to plague the successful acceptance of vocational adjustment of retarded persons. It is necessary to increase community understanding about mental retardation to help alleviate misconceptions deterring their adjustment."

When considering societal attitudes in our country, one might be wise to keep in mind the observations of researchers in other societies. Albizv, et al (1966) found that although 1/3 of the sample they studied in Puerto Rico was found to be psychometrically retarded, when an additional criterion of "failure" was added, the prevalence estimate of retardation dropped to 7.3% for the males (i.e., IQ did not hinder success).

Goldstein (1971) on tour in Europe, found that in a plastic factory in Middlesex England, trainees with an IQ of 50 did so well in their work that they were integrated with the regular employees and earned standard wages for skilled workers. The author points out that throughout Europe, mentally retarded persons on all levels can be found engaged in meaningful, satisfying jobs, not thought possible by most vocational preparation workers in this country.

D. NEW APPROACHES IN A CHANGING SOCIETY

Noone would deny that the mentally retarded face great difficulties in our rapidly changing technological society. The real question is: What should be the response of a nation dedicated to the maximum development of all human resources?

Mallas (p. 74) calls for more imaginative actions by vocational educators: a) to provide retardates with better placement skills; b) to diminish the effects of labelling and: c) to bring about a reduction in governmental procedural red tape. He emphasizes that promising opportunities exist if counselors and employers have the vision to create them!

Martin (1972) called for modifications of learning systems to provide for the whole child. Parnicky (1964) scored employer's lack of understanding of how to use the limited skills of the retarded and urged them to consider the psychosocial dimensions of the job setting.

Even those who are most optimistic urge educators and employers not to stand still, but to act upon the vocational problems of the mentally retarded. The curriculum programs developed in recent years and discussed in Section III of this report, are testimony to the activities taking place in education. The diagnostic screening and individualization mandated by litigation and legislation in this area are equally important developments. In the placement phase, work study programs and increasing numbers of school/business collaboratives are also a big plus.

While the training and preparation of the mentally retarded ought to span their entire educational experience, the placement process occurring in the latter years is presently one of the most critical stages. The development of job opportunities in this phase will determine the social/vocational futures of many individuals.

E. THE PLACEMENT PROCESS

The nature of the placement process is and will continue to be characterized by numerous methodological nuances. However, each approach to placement may be thought of as stemming from one of two distinctly different ideologies concerning the job market and the roles of education and business in our society. Both models are positivistic active examples of what Olshansky and Beach (1974) describe as "negotiating" entry into the job market. Both recycle their data into instructional components of the educational process. Finally, both may be combined into one comprehensive model, but while the first has been widely implemented by rehab centers and school systems, the second exists primarily in the exhortations of the research literature.

As explained below, the two ideologies differ on a number of fundamental points. For the purpose of this discussion, the two approaches will be designated by S for "static" and C for "change."

Type S

The type S placement approach accepts the job market as it is, subject to economic changes generated from within the business community. The purpose of placement is seen as a method of adapting individuals to the existing job market. Where the fit is inappropriate or difficult to arrange, the individual is left to struggle with the predetermined circumstances. Clark (1973) recognizes that in some cases, the person may be working below his/her potential or in a vocation for which he/she is only minimally suited. Still she endorses this approach as presently the best procedure to follow.

Krauch (1972) described a job placement process at Fullerton High School in Los Angeles. There, the project director actively seeks to convince employers of the advantages of hiring the mentally retarded for jobs in which there is often high turnover because of low wages or boredom. Placement depends chiefly on whether the employer is willing to take the risk of hiring the individual.

The type S approach asks only two questions. "Can the individual do the tasks required by the job? Can the individual cope with the psychosocial dimensions of the existent job setting?"

An active search of the job market often turns up jobs which were not previously known to the educator. But new jobs are not created unless business expansion increases the number of already existent jobs.

The unit of analysis for employer and educator alike remains the individual job and its fixed set of required tasks. While various methods for performing each task may be analyzed and studied, the number of tasks making up each job usually remains the same. The inability to successfully perform all of the tasks will often preclude or proscribe employment.

Rarely are the roles of each worker analyzed in relationship to other workers. Questions concerning the job satisfaction of the workers in the job setting are seldom addressed.

The instructional components which complement the type S placement approach are usually generalized to include activities and goals that relate to a set of generic employment skills - including both job tasks and psycho-social traits. Few alternatives exist for shaping and fitting individual needs and interests to potential work settings. The assumption is made that the adaptation process will fill in the gaps.

An Emerging New View

The limitations of the type S placement approach and the development of type C, below, are a direct function of the job design views of business and industry. Davis, Carter and Hoffman (1955) studied American industry to determine current job design criteria. These authors found that the industries they polled were not only uninterested in job design (only 24 of 490 responded), but among those who answered their questionnaire, none were involved in an on-going systematic analysis of job designs. Writing in 1971, Davis refers to conventional concepts of job satisfaction as exclusively concerned with the adaptation to "jobs that, in the post-industrial context, began to seem fundamentally unsuited for man." Davis indicates that businessmen are uncertain about how to provide greater opportunities for satisfaction among their workers while, at the same time, meeting their companies' goals.

Davis sees the development of two approaches to the study of job satisfaction, "each stemming from substantially different sets of views, values and concepts."

A) In one approach - "researchers who cling to the industrial era model continue to examine all aspects of the work situation but the work itself, while searching for economic, community, group and personality variables that correlate with job satisfaction.

Type S placement and its concurrent curriculum, represent education's response to the same need. When applied to the problems of the mentally retarded, type S placement is a response to the mountain of research concerning numerous variables associated with successful adjustment, except the content of the jobs being performed. For all intents and purposes, this latter variable is assumed to rest beyond the scope of education's province.

B) The other approach to the study of job satisfaction in industry, is described by Davis as the work of a "small concentration of researchers and managers," who in action research undertakings are changing the structure and content of jobs along post-industrial lines, and thereby, materially influencing the motivation and satisfaction of job holders." The implications of this concept for type C placement are immense.

Type C

The type C approach to placement accepts the real possibility that the job market can be changed to accommodate the individual needs of employees. The purpose of placement is seen as analyzing job settings in order to determine what new roles may be undertaken by the mentally retarded. Individual job descriptions are analyzed in terms of potential attainability of particular tasks by individual clientele. Goals of each organization are considered in relation to the roles assumed by the individuals in the organization. Groups of tasks from one job may be combined with groups from another to create a different job. Some jobs may be enhanced or enriched as a result of the removal of tasks which require a low cognitive level of skill. The overall effectiveness in terms of long-range cost/benefit analysis are considered.

Craighead (1973) raises the issue of developing new roles when he considers the employment of mentally retarded persons as para-professionals within residential schools.

Critlow (1968) states that job redesign is a method of generating new job opportunities for the educably mentally retarded. This author views the process as one in which routine and repetitive skills are removed from higher skilled jobs and placed in newly created positions that can be filled by the unskilled.

Ayers (1972) suggests the need for the development of job specifications for the mentally retarded, as a result of "breaking jobs down into their components and writing new job descriptions to fit the particular abilities of the individual."

The curriculum of instruction that is linked to the process of developing new job opportunities is one in which individual abilities and interests are matched to groups of skills, specific to particular clusters of job settings. No attempt is made to define a one-to-one relationship between a person and a particular job, but neither does the curriculum rely upon a universal set of behaviors and understandings.

The new job options model which will be described in Section V, is primarily a type C placement model, wedding the basic tenets of the research in Sections I-IV to a timely pragmatic application.

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THE CAREER ACCESS MODEL FOR SPECIAL NEEDS STUDENTS - SOME THEORETICAL PRINCIPLES

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CONCLUSION

Bibliography

> "Under a grant from the Bureau for the Handicapped, USOE, the Institute is developing a process which will maximize new employment prospects for special needs students. Drawing upon our data bank of handicap-coded performance objectives, we are working with representatives from nationally oriented businesses and industries to analyze existing job settings and specific job descriptions. Through this collaboration with businessmen, we are attempting to redesign present job requirements in order to create new career options for individuals with special needs. (ICR Brochure, 1977)

INTRODUCTION

The education of 8 million special needs students is currently a key issue confronting American society. After years of neglect, this segment of our population is finally receiving the attention due it.

One of the primary concerns highlighted by the National Advisory Committee on the Handicapped (1976 Annual Report, p. 18) is the consistent lack of opportunities for disabled children in such fields as vocational and career education. The Institute for Career Education, as indicated above, is developing a career access model which involves the business community. The chief goal of this research is to assist students with special needs in preparing for entry into the mainstream of society.

While ICR's research is concerned primarily with the educable mentally retarded, the basic principles of the model apply to any special needs category.

The research phase currently underway (and described below) has explored a method by which positive relationships with businesses have been developed, new job options have been negotiated and other data valuable to curriculum development have been generated.

The second phase (year) of the research (now being planned) will study the effectiveness with which the newly derived data base can be implemented via cooperative education programs in 4 Massachusetts and 3 New Jersey school districts.

Development of the Career Access Model is guided by the following assumptions:

> People with special needs represent a wealth of human potential which has yet to be fully developed.
>
> The attitudes of American society (as measured by the Rehab. Act of 1973, Public Law 94-142, Massachusetts' Chapter 766 and numerous formal policies of large companies such as Howard Johnsons) are becoming favorable toward providing assistance to citizens with special needs.
>
> Business and education share common interests, if different goals, in developing human resources to their fullest.
>
> Business and education are seeking policies and programs that operationalize the concept of maximizing the human potential of persons with special needs.
>
> Cooperative education programs provide supportive transitions into the world of work for persons with special needs.
>
> The Career Access Model (CAM) will provide a dynamic process by which (1) relevant employment data can be generated continuously into the school curriculum and (2) special needs students can be prepared for and placed in the world of work.

The purpose of this paper is (a) to describe briefly the methodology employed in the first phase of development of the Career Access Model and (b) to delineate the theoretical framework which supports its application.

I. THE CAM MODEL - PHASE 1

This part of the model is at once its most important and unique aspect. Envisioned as a principal part of a placement officer's role, the application of the methodology of this phase is designed to develop an on-going working relationship with businesses in order to identify job options for special needs students. Relevant data about the company, in general, and the work setting specifically, is accumulated via this interaction and relayed to appropriate programs in the school system's curriculum.

Phase I, as implemented by ICR, consists of four subphases:

A. Identification and Contact

Key individuals in nationally oriented companies are identified contacted and told of the project's main goals.* If the person is interested, an orientation meeting is arranged, either at the company, or at ICR.

The companies are in the marketing and distribution cluster as identified by the USOE career education format. The process can be applied at any level, but "national oriented" businesses are thought to have more potential for generalizing data to different communities. The contact persons have personnel responsibilities at the corporation division level or at the individual store level. All contacts have comprehensive knowledge of corporation policy as well as intimate understanding of duties performed by employees at the lowest operations level.

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*ICR has been working with: Brigham's, Burger King, Marriott, Marshall's, McDonald's, Stop and Shop, Texaco and Zayre's.

B. Orientation and Follow-Up

1. The orientation begins with:

   (a) An explanation of the goals of the BEH grant and ICR's computerized data bank of task outlines and performance objectives coded by attainability levels for various special needs categories (e.g. physical, mentally retarded, blind).

   (b) An outline of the peculiar needs of the educable mentally retarded including background information concerning their documented occupational successes as well as reasons for significant maladjustment problems.

   (c) A description of ICR's role in simulating the activities of a school district which would feed the data into a cooperative effort with a local business similar to that of the contact company.

   (d) A briefing on the kind of participation ICR is seeking from the contact.

2. During this meeting the following issues are discussed:

   (a) The social responsibilities of business.

   (b) The 1973 Rehabilitation Act and its effect on business.

   (c) Concerns of business in regard to worker alienation, absenteeism and turnover rates, and their effects on productivity and profits.

   (d) The value of human resources.

(e) The company's management training programs.

3. During this first meeting and the follow-up (if he agrees to work with ICR) data is collected concerning company structure, policies, programs, as well as attitudes toward hiring the handicapped.

4. Finally, having obtained a commitment to cooperate, ICR asks the company representative to do the following:

   (a) Analyze the work setting in the lowest unit of the organization (store, restaurant, etc.).

   (b) Identify and explain the roles occupied by employees in the unit and the relationship between them.

   (c) Select from a list of general task outlines, those that are most appropriate for the company (e.g. waiter/waitress for Burger King).

   (d) Study the task outlines, deleting unnecessary tasks and adding appropriate ones in order to develop a reasonable description of the job as it exists in the specific company.

   (e) Fill out a general employability questionnaire (for each job) which asks for a rating of the criticality of 12 variables concerned with occupational adjustment.

Items d and e are accomplished between meetings and the materials are picked up at the next meeting. At this time, follow-up questions are asked, concerning the general employability questionnaire and any other unclear issues.

C. Data Analysis

During this phase each refined task outline is compared to the coded data retrieved from the computer. The number of tasks indicated as attainable by an EMR are matched against the number normally required for each job. In this manner a "relative fit" is determined for one or more jobs in the particular setting. Finally a number of possible combinations are explored to find out if, through a redesign of the jobs in the setting, a possible entry job may be constituted.

D. Negotiation and Validation

In the third meeting the contact person is presented with the results of the data analysis and alternate job options are considered. During this joint analysis the business representative validates whether or not a particular option would constitute a feasible opportunity in his/her company for an EMR in a school system cooperative education program. Much of the success of this process depends on the willingness of the contact person to join in the pursuit of alternative possibilities.

The newly developed task outlines, as well as other data collected during the above process, can now be made available for use in the school program. The same or similar companies in a local community can now be approached with specific data on the type of operation that exists and special needs curricula can be adapted to prepare students for placement in cooperative programs with willing employers.

II. THEORETICAL PRINCIPLES UNDERLYING PHASE I

In this section the four general principles summarized below are developed in relationship to the methodology and purposes of Phase I of the Career Access Model research.

1. The CAM is a systems approach which articulates the mutual interests of business and education.
2. Business organizations are developing a social responsibility ethic that reaches beyond mere compliance with laws and regulations.
3. Investments in human resources provide assets for any organization.
4. Job redesign is a method by which organizations can change to accommodate the skills and capabilities of people with special needs.

A. A SYSTEMS APPROACH

1. Role Ambiguity

The cooperative education component of the CAM bridges the gap between organizations which, as sybsystems of the larger social context, share common purposes. Collaboration between business and education, facilitates the articulation of each organization's responsibility toward people with special needs. In regard to this latter population of citizens today, each institution generally recognizes there is a responsibility, but each appears to be suffering from a severe case of organizational role ambiguity, i.e.

neither is quite sure what society is expecting of it.

2. Operationalizing A Concept

The Career Access Model operationalizes the concept of "assisting the disabled." The model, by entering a subsystem of each organization, also provides the prospect of causing changes in other subunits of the same system. If, for example, several units in one company district can be altered to accommodate people with special needs, perhaps the rest of the company will feel the effects. If the special needs program of a school system integrates data concerning new job options in local businesses and individualized instruction results, perhaps other subunits of the school system will adopt similar curriculum change.

3. The Beer/Huse Model.

If successful, the Career Access Model would support several of the key features of the Beer/Huse systems model for change. (Beer and Huse 1972.) By initiating change at lower levels of the organization, by gaining support of internal change leaders, by setting off "additional interactive processes in which the latent abilities of people begin to be developed" and by exerting influence upward thereby gaining increasing acceptance of key concepts at higher levels of each organization, the CAM might truly effect the development of mutually:

> ". . . evolving systems that maintain reasonable internal consistency while staying relevant to and anticipating changes and adaptation to the outside environment."

B. AMERICAN BUSINESS AND SOCIAL RESPONSIBILITY

The response of the business community to the requirements of the Career Access Model depends on its perceptions of recent changes in American society and its own role in relation to these changes.

1. General Societal Changes

Businessmen cannot mistake the direction that state and federal governments have taken in recent years through legislation such as Public Law 94-142, Massachusetts Chapter 766 and the Rehabilitaton Act of 1973. All three of these laws seek to alleviate the restrictive treatment of individuals with special needs that has prevailed for so long. Court cases such as Wyatt vs. Stockney (344, F-Supp, 387) * have further fueled the fires of change, as have the efforts of numerous researchers across the nation in developing programs and curriculum tailored to special learning needs. (Brolin, 1976.)

Private organizations, such as the Kennedy Foundation, have undertaken intensive research and commitment to special needs issues and many big businesses (e.g. Howard Johnson's, Woolworth's) have publicly, and

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*This 1972 ruling involved 5th, 8th and 14th amendment protections in an Alabama case involving the rights to rehabilitation of a civilly committed mental retardate.

independently, adopted policies favorable to hiring the handicapped.

2. Changing Economic Views

The attitude of many corporations toward noneconomic endeavors has changed in recent years. Thomas Petit in The Moral Crisis In Management (1967), observed that a trend was taking place in American business away from the pure profit ethic characteristic of the early years of the 20th century, to a new era in which a social responsibility ethic prevails. Petit maintains that the basic nature of the American economy has changed so drastically that "the older theories about the corporation and the manager are obsolete." (Petit, p. 2.) No longer do managers make decisions solely on the basis of which alternative will contribute the most to profits. No longer are the traditional assumptions about natural law, universal competition and economic man the primary theoretical tenets of business operations. The captain of industry has given way to the chief executive who is not only responsible to stockholders but also to the welfare of employees, customers and the community.

> "A balanced view is that profit is an important goal of business but managers need not maximize profits. Profit is necessary to the survival of the enterprise and is needed to attain other objectives. But most managers are content to earn a satisfactory level of profit rather than hold out for the maximum obtainable. In the press of modern

business where decisions must be made rapidly and often from sketchy data, it is too difficult to determine the profit-maximizing decision or policy. Most managers "muddle through" and do the best they can. This approach is known as "profit satisficing" as compared to "profit maximizing." (Petit, p. 6.)

3. The Emerging Social Responsibility Ethic

Petit partly attributes this trend to the pressures of a changing society.

> "People want other things besides goods and services from the modern corporation. Increasingly it is considered the manager's job to see that they get them." (Petit p. 7.)

Petit's position was sustained by a New York Times survey conducted to learn the ideas of fifty-two leading executives of the largest corporations about the social responsibilities of management. Every executive who replied "was emphatic in expressing his belief that business had a social responsibility beyond providing quality goods and services to customers." George S. Moore, president of the First National Bank, New York, is quoted as follows:

> "Social responsibility is not an attitude that a business organization adopts in a fit of benevolence like a decision to hold a company picnic. Its social responsibility is, instead, inseparable from its response to the kind of world in which we live. For today's institutions - banking or business, public or private - cannot exist in modern society without reacting constructively to 1) the goals of society and 2) the economic, technological, social and political forces that mold that society." (Wright 1966.)

4. Not Just P.R.

Petit rejects the notion that statements such as this are merely public relations gestures.

> "There is a sincere desire on the part of responsible executives to gain the respect of the general public by utilizing their considerable power for the common good. The Corporation is regarded as a multipurpose social institution, and the pursuit of profit is secondary in importance to the public interest."

5. From Competition to Cooperation

In summary, Petit expresses the belief that the end of laissez-faire and the use of the general welfare state contradicts the profit ethic assumption that the best individual and social results ensue when individuals pursue their self-interest in unregulated freedom. The new ethic emphasizes cooperation rather than competition, social interdependence rather than rugged individualism and the human rather than supernatural source of social and economic arrangements.

> "The hard-driving profit maximizer who eschews all values not definable in money terms is out of step with (the new ideology), p. 12."

6. A Renewed Mission

Thomas Petit was writing at a time when the American economy was cresting on Lyndon Johnson's Great Society. The ravaging years of Viet Nam were yet to take their toll on the American consciousness or its pocketbook. Whether or not the much maligned U.S. corporation of that era was in fact moving toward the noble ethic Petit foresaw is difficult to determine. For hardly had the anguish of Viet Nam begun to subside when the nation was confronted with Watergate, the energy crisis and simultaneous unemployment and inflation. The Greening of America would have to wait for more propitious times.

In 1977 the spirit of cooperation and interdependence between American institutions is beckoned once again by heightening concern for the plight of the handicapped. Regulations for the 1973 Rehabilitation Act* must be enforced in business, while Public Law 94-142 must be implemented in the schools. The Career Access Model provides a means by which the business community can fulfill its public responsibility while complying with the demands of the Rehabilitation Act.

C. MEASURING HUMAN RESOURCES

Amidst the present uncertainty of business commitment to the handicapped, one is wise to heed Petit's main thesis and consider alternative strategies for enticing cooperation.

The moral crisis of management, Petit asserts, exists because there is a gap between business practice and business ethics.

> "Most managers claim to accept the profit ethic and to reject the social responsibility ethic. Yet their behavior departs significantly from profit maximization in the direction of social responsibility." (p. 11.)

It is probably safe to assume that most leading executives as well as local store managers, behave "in a socially responsible manner." Yet, to the extent that the profit ethic remains pervasive in American society, it is necessary that in applying the CAM, cost/benefit analyses must be available to supplement appeals to business's altruistic motives.

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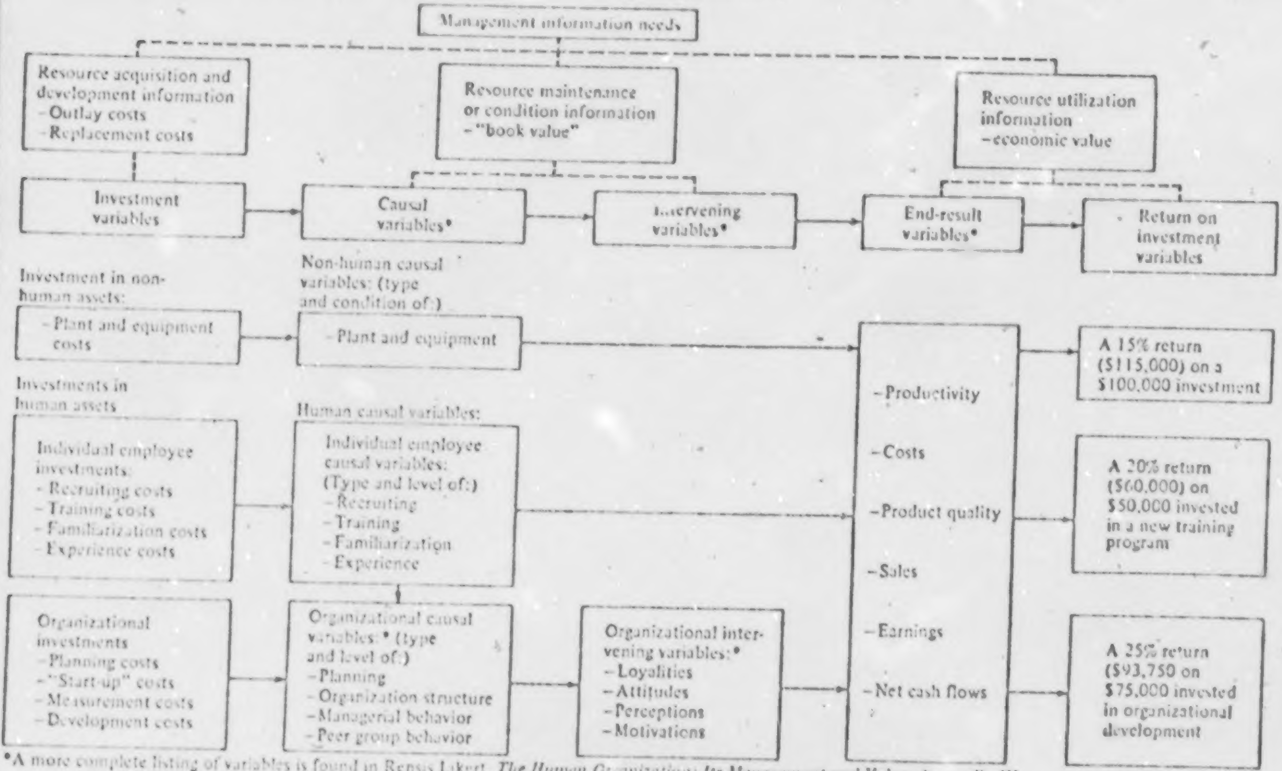
*Presently, regulations apply only to those companies with $2500. or more in government contracts, but the spirit of the law applies to all of business.

1. Human Resource Accounting

Human resource accounting is a method by which business seeks to measure an employee's value to the organization (Huse, 1975). HRA was spurred by Rensis Likert (1967) and his associates at the University of Michigan. They predicted it would be a number of years before the statistical methods for HRA would be ready for implementation, and as of 1975, only one major company - R. C. Barry Corporation of Columbus, Ohio - had attempted to develop HRA (Huse, p. 293, Brummet, pp. 226-229). Nevertheless, the concepts behind this management approach appear soundly appropriate when considering the handicapped.

Likert's Human Resource Model (see Chart 1), considers investments in human assets, at the individual level - for recruitment, training, familiarization and experience - and at the organizational level - for planning, start up, measurement and development. Likert also includes several intervening variables - loyalties, attitudes, perceptions, motivations. All of these variables, individual, organizational and intervening, relate to the end result variables so important to business goals - productivity, costs, *A human resource accounting model (with examples of variables)*


Management information needs
Resource acquisition and development information
–Outlay costs
–Replacement costs
Resource maintenance or condition information
–"book value"
Resource utilization information
–economic value
Investment variables
Causal variables*
Intervening variables*
End-result variables*
Return on investment variables
Investment in non-human assets:
–Plant and equipment costs
Non-human causal variables: (type and condition of:)
–Plant and equipment
Investments in human assets
Individual employee investments:
–Recruiting costs
–Training costs
–Familiarization costs
–Experience costs
Human causal variables:
Individual employee causal variables: (Type and level of:)
–Recruiting
–Training
–Familiarization
–Experience
Organizational investments
–Planning costs
–"Start-up" costs
–Measurement costs
–Development costs
Organizational causal variables:* (type and level of:)
–Planning
–Organization structure
–Managerial behavior
–Peer group behavior
Organizational intervening variables:*
–Loyalities
–Attitudes
–Perceptions
–Motivations
–Productivity
–Costs
–Product quality
–Sales
–Earnings
–Net cash flows
A 15% return ($115,000) on a $100,000 investment
A 20% return ($60,000) on $50,000 invested in a new training program
A 25% return ($93,750 on $75,000 invested in organizational development

*A more complete listing of variables is found in Rensis Likert, *The Human Organization: Its Management and Value*, Appendix III.

Chart 1.

product quality, sales, earnings, net cash flows.

The key point is that human beings have potential which when developed by the organization represents an accountable value similar to plant and equipment investments.

2. Problems In The Work Place and Their Costs

In light of widespread problems of worker alienation in recent years (see Work in America, 1973), the business community should look seriously at coupling the need to hire the handicapped with present worker needs. For the costs of absenteeism and turnover are high. As Jeswald (1974) states:

> "Rates of absenteeism and turnover in most large business organizations today are considerably above. . . optimal low rates. As a result most large businesses incur millions of dollars in added costs each year." (p. 356.)

Jeswald outlines these costs for each category:

Absenteeism a) Fringe Benefits b) overtime costs c) under-utilization of facilities d) loss of productivity.
Turnover a) Fringe benefits b) severence pay c) overtime costs d) underutilization of facilities e) administrative costs f) employment costs g) training costs g) loss of productivity.

In regard to Likert's "intervening variables," research has demonstrated a positive correlation between worker dissatisfaction and absenteeism and turnovers. Porter and Steers (1973) in a comprehensive review of the literature report on 4 general categories or "levels" in the organization in which factors can be found that affect turnover

- Organization wide - pay and promotion policies
- Work group - unit size, supervision, co-worker problems
- Content of the job - nature of job requirements (design)
- Person himself - age, tenure

Beyond this evidence various authors (Shneider and Snyder 1975, Lawlor 1973) have reported that satisfaction is not related to production data. The implication here is that while workers may be steady, thereby reducing absentee and turnover costs, increases in their production are related to other motivators (e.g. work itself - see next Section of paper) in which investment costs might be incurred.

3. The Handicapped as a Valuable Resource

By providing opportunities for handicapped groups, such as the educable mentally retarded, to do work which is more appropriate for their abilities, a business may be able to free other workers to maximize their individual strengths. The savings on retention as well as earnings on increased productivity would justify the initial investments of time, training and change.

The CAM provides a process through which the human potential of a sizeable, neglected segment of our population may be developed.

In deciding whether to cooperate in the Career Access Model program, businessmen are asked to consider questions similar to the following:

Are you willing to make an investment in an environmental or work flow change that will provide entry for a handicapped person? Given that the handicapped have proved to be steady, efficient workers (see Brolin 1976 on EMR's), are you willing to take the risk that the handicapped individual will develop into a productive asset to your business? Can you couple this investment with a long range plan to motivate present employees?

Another consideration for the employer is the question of customer good will that in the long run will be engendered by programs with local community institutions such as the school system. Likert (1967) writes

"Customer good will like the value of the human organization is an asset of substantial magnitude in most companies" (p. 203).

4. A Vital Feature of CAM.

Asking businesses to consider the value of human resources, as sustained by the Likert's theoretical analysis, is an important feature of the CAM. Employers must be willing to accept long range returns on investments in light of short term problems and needs. Hopefully the management principles prevailing in the American business community will continue to progress in the direction to which Likert has pointed.

Ironically, Likert (1967, p. 222) suggests that the development of statistical methods to implement his model will be advantageous in corporations with relatively comparable units such as chain stores. These are precisely the kind of businesses with which the CAM initially is linked. An implication of this coincidence is that a company through a coop program with a school system might conceivably set up a comparative study to see if its investments indeed were worthwhile.

D. JOB REDESIGN - A MEANS TO A FUTURE

1. Contingency Theory Applied

The Career Access Model uses job redesign as a method of assisting business in meeting its social responsibility by investing in the untapped human resources of people with special needs. The use of job redesign technology is a logical extension of Contingency Theory as developed by Lawrence and Lorsch (1967). The three key points of the theory are summarized by Huse (1975, p. 122).

1. There is no "best way" to design an organization.
2. The design of the organization and/or its subsystems must "fit" its environment.
3. The needs of the individual organization members are better satisfied to the extent that the organization is properly designed.

If a person is physically or mentally handicapped, he/she does not "fit" easily into many organizations. Usually he/she is forced to adapt to the setting or seek employment elsewhere. The CAM rests upon the assumption that many organizations can and should change the design of their work settings to meet the individual needs of the handicapped. In doing so they would be responding to a major "contingency" presently facing American society.

2. What is Job Design?

> Job design is defined by Lars E. Davis as the "specification of the contents, methods and relationships of jobs in order to satisfy technological and organizational requirements as well as the social and personal requirements of the job holder." (Davis 1966.)

The specification of job content can be divided into two categories: (a) physical-environment and physiological requirements and (b) organizational, social and personal requirements. Of the first category, Davis points out that a substantial body of knowledge exists and has been applied extending back to Frederick Taylor's time and motion studies at the turn of the century. On the side of the second category much knowledge exists but little has been applied. Davis (1971) writes elsewhere

> ". . . we are witnessing a split between two approaches to the study of job satisfaction. In the first a small concentration of researchers and managers are examining and, in action research undertakings, are changing the structure and content of jobs along post-industrial lines, and

> thereby materially influencing the motivation and satisfaction of job holders. In the other approach, researchers who cling to the industrial era model continue to examine all aspects of the work situation but the work itself, while searching for economic, community group and personality variables that correlate with measures of job satisfaction. The two sets of endeavors simply exist in two different worlds, i.e. they stem from substantially different sets of views, values and concepts." (Davis and Taylor, 1973, p. 155.)

3. Job Design and the Handicapped

For the handicapped, neither physical/environmental/physiological or organizational/social/personal dimensions have been explored in much depth. Of the two, the former classification is most often considered (e.g. ramps into buildings, company policies). However, the "post industrial view" carries the greatest hope for persons with special needs, especially the educable mentally retarded. For the EMR, change is insignificant unless it impacts on the myriad of social/employability factors that create occupational maladjustment for them (Kolstoe, 1962; Goldstein, 1964; Brolin, 1976). Beyond these considerations, of what value is a change in company policy or a supervisor's attitude, if the EMR is still asked to perform at a level clearly beyond his/her capability? Indeed as Davis points out, different values must be introduced into the management equation in order to provide the impetus for more enlightened consideration of the relationship between the content of work and these individuals.

4. Why Redesign the Work Itself?

   a. Maslow's Heirarchy.

   Job redesign begins with the assumption that individuals expend effort in order to satisfy a set of personal needs.* According to Maslow (1970), these needs occupy a heirarchy from lower level physiological, safety and security needs to higher level needs of esteem and self actualization. Job performance is viewed as consisting of extrinsic and intrinsic rewards. The extrinsic rewards are provided by others and parallel the lower level physiological, safety and security needs. The internal, or intrinsic rewards are represented by higher level needs, i.e. the need to perform work that is itself rewarding and meaningful. (Rush, 1971, p. 7.)

   b. Herzberg's Theory.

   A second assumption in job redesign is that altering the work itself is the best way to provide the rewards necessary to motivate an individual to greater satisfaction and productivity. Herzberg (1966) identifies two separate and discreet sets of factors (see below). One set, the hygiene factors, serve to maintain or support the job. They serve to satisfy lower level needs and in their absence the individual will report dissatisfaction. If they are present the person will not be dissatisfied but neither will he/she be motivated. To be motivated, the job must satisfy upper level needs by providing motivators.

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*The decision to act is also related to individual personality and alternative choices not considered here but discussed by Argyris (1973) and Huse (Lecture March 3, 1977).

Herzberg's Hygiene of Dissatisfying Factors

1. Administrative Policies and Practices
2. Supervision
3. Working Conditions
4. Interpersonal Relations
5. Salary
6. Status
7. Job Security
8. Personal Life

Motivating or Satisfying Factors

1. Achievement
2. Recognition
3. Work Itself
4. Responsibility
5. Advancement
6. Growth

Theoretically, if the right motivators can be added to a job the individual will be more productive and satisfied.

c. Turner and Lawrence.

Another theoretical foundation of job design was developed by Turner and Lawrence (1965) who analyzed attributes of the work itself and defined 5 core dimensions: (1) the variety of tasks; (2) the wholeness of the job; (3) the perceivable impact of the job on others; (4) worker autonomy; and (5) feedback from the job.

(Summarized in Huse, 1976, pp. 197-198.) These job characteristics lead to critical psychological states for the individual - the first three to experiencing meaningfulness in the work, the fourth (autonomy) to experiencing responsibility for outcomes of the work and the fifth (feedback) to knowing the actual results of the work activities. Theoretically, when an individual is able to derive meaningfulness, responsibility and a knowledge of the actual results from work, the results will be a number of the following personal and work outcomes: (a) High internal work motivation; (b) high quality work performance; (c) high satisfaction with the work; (d) low absenteeism and turnover.

In sum, both Herzberg and Turner and Lawrence maintain that an individual's existence will be enhanced and his work will improve if the work he/she is doing is set up in such a way as to fit the individual's particular needs.

d. Implications for the Handicapped.

The implication of this discussion for the handicapped is two fold. First, the fact that this group's needs are "special" does not change the requirement that the same motivators can and should be used to affect their job satisfaction and productivity. The problem is not one of kind, but of degree. People with special needs often come to the work place with very delicate personality states. What is instructive here is that alternative job designs represent a way to focus the individual's attention on activities that can involve them with meaningful experiences in a real work setting.

The second implication of these theories is their potential application to the problem of providing entry level jobs for the handicapped. At present, job enrichment programs embodying these theoretical notions have been widely used for purposes such as (1) increasing employee motivation; (2) raising productivity; (3) improving quality or quantity of goods and services; (4) reducing operating costs; (5) reducing turnover and training costs; (6) accommodating new technology. (Ruth, 1971, p. 12.) When one speaks of adding a planning function to the work of an immobile physically disabled person or factoring out a set of routine tasks for an educable mentally retarded individual, a seventh purpose, the creation of jobs for citizens previously restricted from the work place, becomes operationalized.

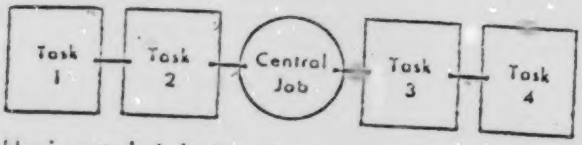
5. How Is the Theory Applied

In Chart #2, (Ruch, 1971, p. 13), two exhibits are shown which summarize the general techniques which are used in job enrichment programs. Horizontal Loading widens the number of tasks performed without deepening the responsibility. An assembly worker may be asked to put five or six parts of a chassis in place instead of just one. An individual in a food store may be rotated among a number of jobs to maintain variety in his work. This approach known as job enlargement is most in line with Turner and Lawrence's first three core dimensions.

Vertical Loading usually means delegating to the worker some functions generally thought to be managerial (Rush, p. 13). Content and planning are shown in Exhibit 2. This technique provides the motivators Herzberg discusses as well as the more sophisticated core dimensions of Turner and Lawrence. Most researchers agree that the best approach to job design is one that includes both horizontal and vertical loading. (Huse, 1976, p. 195.)

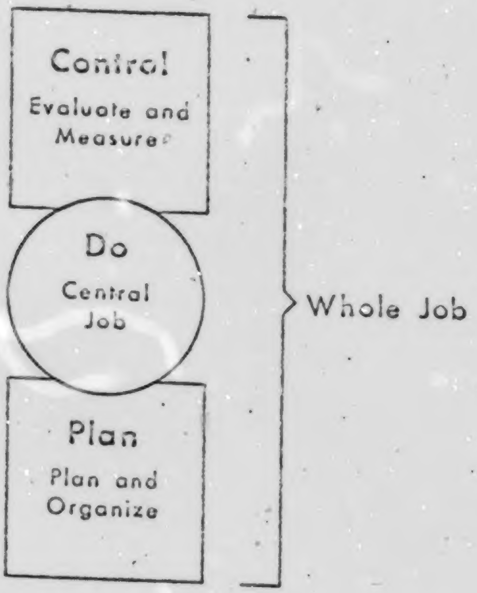
Another conceptualization is provided by Ford (1969, p. 157).

EXHIBIT 1:


Task 1
Task 2
Central Job
Task 3
Task 4

Horizontal Job Loading

EXHIBIT 2:


Control
Evaluate and Measure
Do
Central Job
Plan
Plan and Organize
Whole Job

Vertical Job Loading

Chart 2.

Chart #3 demonstrates several ways in which the responsibilities and duties of a given job may be manipulated to change the job description, thereby improving the work itself for the individual and his/her co-workers. This model becomes the basis for considering the job criteria suggested by Herzberg and Turner and Lawrence. Using this scheme, Ford poses five sets of questions which appear in Chart #4. (From Huse, p. 75, p. 200.)

The work done by Ford and many others is part of a formal, systematic process which comprises a number of steps, taken over a number of months, and imposed downward from the top management of an organization.

6. Job Enrichment Implemented

Many companies have implemented job enrichment programs for reasons reported in Work in America (1973) and cited by Hamner (1974).

> ". . . a significant number of American workers are dissatisfied with the quality of their working lives. Dull repetitive, seemingly meaningless tasks, offering little challenge or autonomy are causing discontent among workers at all occupational levels. This discontent has resulted in restricting of output, poor quality work, and refusal of overtime. It has contributed to high absenteeism and turnover rates and to militant demands for higher wages, more fringe benefits and greater participation in decision making." (Page 280.)

Some of the firms reporting success (increased productivity and worker satisfaction) with job enrichment programs are

A SCHEME FOR THINKING ABOUT IMPROVING WORK ITSELF

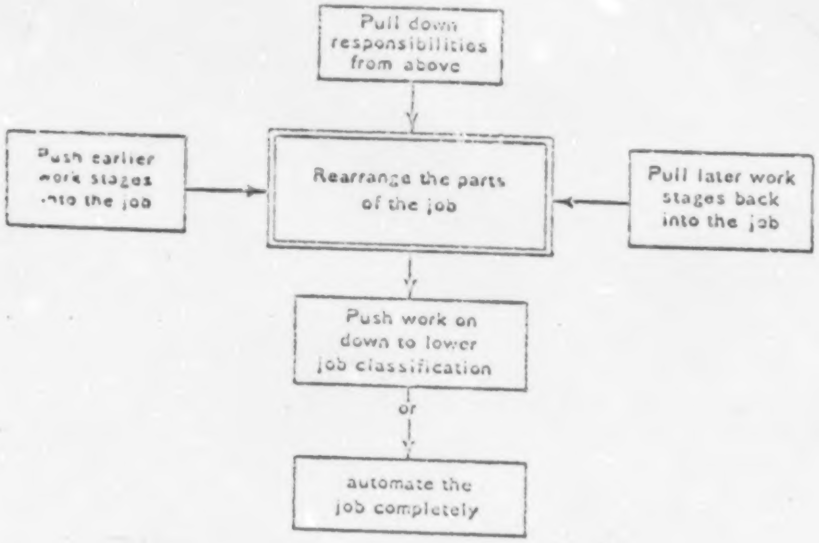

Pull down responsibilities from above
Push earlier work stages into the job
Rearrange the parts of the job
Pull later work stages back into the job
Push work on down to lower job classification
or
automate the job completely

Chart 3.

THE DEVELOPMENT OF A MODULE
(Natural Units of Work)

A. Pulling Down Responsibilities from Above

1. What do we let an employee do in an emergency or in the absence of the supervisor that he or she might be allowed to do all the time?
2. What does the supervisor now do that the individual could do once we are sure that he or she is competent?
3. What supervisory controls have been established that can be reduced or eliminated?
4. What can we do to let the employee do more of the planning and scheduling of the work itself?

B. Pushing Earlier Work Stages into the Job

1. What steps that precede the work should be a part of the job itself if the person is to have a complete module of work?
2. What information about schedules, due dates, and other facts about the job should the employee have as an aid to planning work?

C. Pulling Later Work Stages Back into the Job

1. Are there any tasks now done after the employee's work that would make the module more meaningful and responsible?
2. Are there any later inspection, verification, or checking procedures that can be dropped or performed by the employee?

D. Pushing Work Down to Lower Job Classifications

1. What tasks should be pushed down to a job at a lower level of classification?
2. What tasks could be automated completely?

E. Rearranging the Parts of the Job

1. Was there once a way of handling this work that was more meaningful or satisfying in some respect?
2. Can products, accounts, or customers be divided into meaningful classes so that an employee might be given the responsibility for a particular client or product?
3. What individualized measurements are there for the employee to personally develop an index or set of measurements to check work progress and correct mistakes?
4. What training can employees give to one another? What specialized knowledge might they be encouraged to build up? What new things could they learn to do that someone else now does?

Chart 4.

AT & T, Motorola, Buick, Texas Instruments, Gaines Food Plant, Monsanto, Volvo, Poloroid, Exxon and Xerox. (See Hamner, 1974; Walton, 1972; Davis and Taylor, 1973; Gibson, 1973; Huse, 1975.)

7. The Group and New Roles

An interesting development in job redesign research has been the numerous successes reported under these circumstances. The worker is viewed as playing a role that is interrelated to and interdependent upon the roles of his co-workers.

Touraine (Davis and Taylor, 1973), considers the evolution of job designs in industrial society. In the final phase of the evolution the worker can no longer be thought of as holding a job that relates him to materials, tools and machinery. Now, he superintends, records and controls.

> "In a system dominated by technology most aspects of skill are now absorbed into the social aspects. The rhythm and character of the work is no longer determined by the nature of the product manufactured, or the machine utilized, or by the character of human effort, but by the way in which the work is organized. Whether or not the worker is qualified for the job depends now on his capacity to integrate himself into the social group and to take responsibility." (pp. 56-57.)

The importance of groups is not restricted to industry but also is very important in other settings, such as secretarial pools, department stores and restaurants. But the key job design questions remain the same, i.e. what are the social and organizational factors that impinge upon the work that must be done, and how can the roles of the participants be assigned to maximize the organization's goals and each individual's capabilities?

8. Job Redesign, Special Needs and the Educable Mentally Retarded

a. Dehumanizing for Whom?

Although job redesign is an appropriate methodology for creating entry level jobs for handicapped individuals, it has not been applied for that purpose. Ironically one criticism that is common in the literature could be at least partially resolved if attention were paid to mentally retarded persons, a group of citizens presently restricted from many work settings.

Hamner (1974) points out that there are some jobs which cannot be enriched beyond a certain point. "All the redesign in the world cannot make certain dull tasks exciting."

Levitan and Johnson (1973) state that "The basic limit to work redesign is that society requires that certain tasks be done...The prospects for humanizing work are limited by the work to be done - realities which are beyond the power of planners to control" (p. 5).

Robert Ford's scheme depicted in Chart #3, contains a category "Push work on down to lower job classification." Below this rectangle is a rectangle which states "Automate the job completely." Hamner Levitan and Johnson are concerned that in the absence of a means to automation, work which is routine in nature will have to be assigned to people for whom it will be boring and unexciting. Walton (1972) runs into the same problem when discussing a team approach within a pet food industrial setting. In discussing the fork lift job, identified as "not technically challenging," Walton (Huse, p. 398), suggests that the team member assigned this job should be assigned more mentally demanding tasks as well. He also suggests a democratic process of sharing routine housekeeping duties.

For the educable mentally retarded person, many jobs which fit the lower classification of Ford's scheme would serve as an enrichment over sheltered workshops, back rooms, or unemployment. With a bit of creativity, new job options can be developed in a number of work settings where EMR's are otherwise unable to enter. For the EMR, the initial question is not whether the job is humanizing, the question is whether or not it is available. But the second consideration, career development, follows naturally from the first arrangement. Coupling the development of new job options with concern for all of the workers in the setting, leads to a definition of roles which have differing and more difficult competency levels to which the newly employed EMR may aspire. Finally the setting should not be viewed as static even when redesigned. Nothing should prevent a supervisor from reassigning roles if new employees enter or present ones, including EMR's, develop and grow on the job. Since the latter possibility is very real (2/3 of all EMR's lose the label in late adolescence and early adulthood anyway) it must not go unaddressed in providing entry level jobs.

The Career Access Model calls for application of job redesign technology. The limits of this pursuit for the handicapped seem as infinite as for the so called normal individual. Yet, little is known at this time. Recent successes by the Institute for Career Research have been characterized by two important aspects of job redesign technology.

First, successes have not depended on a formal top down management approach typical of Ford's research. By linking with division personnel representatives and individual store managers, validation of new job opportunities has been achieved in most cases without going through the corporate center of the company. This represents a concrete application of the Beer/Huse Model of change.

A second important aspect of ICR's research has been the emerging concepts of group activity in business has contributed to the development of a number of entry level positions in restaurants and department stores where individual roles have been altered and changed to fit the individual.

Tourraine makes the point that depending upon the mutual needs of the organization and the individual, quite different working relationships can occur. His alternatives appear eminently fitting for EMR's.

> "The worker under close supervision can be restricted to simple tasks which do not necessitate understanding technical problems, he can, on the other hand, work with more understanding by being associated with technical personnel and instructed and guided by them; he can perform his task mechanically or exercise initiative and take the lead in innovation. These different possibilities are dependent on the psychology of management, supervision and workers, that is to say, on the state of human and industrial relations, which in turn are social and organizational factors."

The group has the potential for supporting its members and assisting in the development of each individual. Many settings from offices to sales rooms lend themselves to possible reorganization, if managers will address the real possibilities for change.

CONCLUSION

The Career Access Model is one approach to helping people with special needs gain entry into the world of work. As a cooperative program the CAM brings together business and education in a collaboration which serves the needs and interests of both organizations. Finally, the application of job redesign to the special problems of the handicapped appears to be a sensible systematic and humane approach which can work.

APPENDIX B

Samples of Information Generation

a. Company Data Sheets
b. CompanyBackground Data
c. Specific Task Outlines
d. Career Development Charts
e. Social Employability Factors

COMPANY DATA SHEET

Name of Company:

Location:

Is company accessible to students?

Name of local contact(s); include titles:

Jobs considered for placement:

Career Options:

Task Outlines:

Those used in negotiations:

Those needed:

New ones delineated from existent TO's:

New ones delineated without TO's:

Key CEQ factors given:

General work aspects (hours, pay, etc.):

Students considered:

Students placed:

Company problems:

Willingness of company to cooperate (circle 1):

1 2 3 4 5 6 7

Openess to redesign of work (circle one):

1 2 3 4 5 6 7

Comments:

COMPANY BACKGROUND DATA

The following anectodal remarks with regard to the companies with whom we worked during Phase I are presented in the following section. The purpose of this enclosure is to provide the reader with an informal analysis of the cooperations, concerns and constraints with which each company dealt with the CAM Model.

They are not to be construed as statements of company policy, but rather as an informal record of the project staff's perception of our interactions with the ten companies.

During the follow-up meetings with company contacts, there was unanimous agreement that during year two, they would continue to serve as company liaison persons and also to provide, in a variety of ways, continued support of the CAM Model. The support has already manifested itself at both the corporate and local level.

At the corporate level:

1. Mr. Veves, at Burger King, has indicated a willingness, when appropriate, to personally sit with local managers in suitable school districts to assist in creating potential placements.
2. Mr. Smith at Brigham's has agreed to inform corporate and local personnel of the CAM Model through an inter-office memo.
3. At Zayre's, Mr. Sonis has consented to personally contact store managers at the appropriate time. This is an extension of his prior intercession with Mr. Sullivan, manager of the Hanover store.
4. Mr. Falby, at Marshall's, has agreed to discuss placements at the company's corporate headquarters with demonstration site school personnel.
5. Mr. Cooney, at Stop and Shop, in his cooperation with project staff, has agreed to contact a local store manager to arrange for a visitation by a demonstration site placement coordinator.

At the local level several interesting involvements have begun to take shape:

1. Mr. Torruella of the Marriott has already sat with a placement coordinator to discuss placement possibilities for the project's second year.
2. At Woolworth's, Ms. Martin is informing the Boston store's General Manager of the CAM Model and has agreed to meet with school staff to discuss further interactions.

As one can see from the above varieties of interaction, that the commitments on the part of business and industry is beginning to take on very specific activities which are giving real substance to each company's verbal support of our efforts.

Company: Brigham's

Contact: Randall Smith
Personnel Manager

Food/Food Preparation-Service

Cooperation in this company has been of the highest order. Brigham's has an extensive "in-house" training program. Mr. Smith has cooperated with Greater Boston Chamber of Commerce in the Boston Public Schools. He volunteered the use of certain company materials for in-school use toward ". . . a means for cutting down on training time." While the company has no formal policy with regard to hiring EMR's, practices of the company suggest a strong commitment to the idea. Local managers have discretion to fit jobs to people. Work environment can be adjusted or modified by local managers. Cross training and flexibility in personnel utilization are openly endorsed.

Company: Burger King

Contact: Arthur Veves

Food/Fast Food Preparation-Service

We perceived a very positive attitude during our interaction with Burger King. Mr. Veves is new to his position, but this did not deter him from becoming involved and relaying information to corporate headquarters in Florida. While no specific policy for hiring EMR's exists, a willingness was expressed to do so. Despite the position of the corporate level personnel manager, for company owned stores, local managers have discretion in hiring persons for their outlets. The organization's position is that job performance is paramount and therefore whoever can perform will be hired.

Company: Marriott Motor Hotels

Contact: Ramberto Torruella
Personnel Manager/Newton

Hotel/Motel Services

Under their "guarantee of fair treatment" policy, the Marriott has a long history of affirmative action and social concern. This is manifested by the existing practice of hiring mentally retarded persons. During our interaction we have met a number of persons who had been labeled retarded, but are efficient, productive members of the Marriott staff in Newton. Mr. Torruella has been most cooperative and encouraging, not only as a company contact, but also a member of the Project's Task Force. The company has an extensive in-house training program. They have had an extensive collaboration with The Fernald School and have begun interaction with the Newton Public Schools.

Marriott Motor Hotels/Continued

Because of corporate attitude, local practices are people oriented. There is a considerable amount of work done in employee relations, with the company providing a number of support services from personal finance counseling to job redesign. The work environment is positive and therefore conducive to fitting jobs to people.

Company: Marshall's

Contact: Neil F. Falby
Personnel Manager

Retail/Discount Department Store

Marshall's, by virtue of the effort put forth by Mr. Falby and members of his staff, has significantly contributed to the initial development of the Career Accessibility Model. At the outset there was a spirit of service exhibited by the corporation through Mr. Falby. The corporate commitment essentially was one of - what could Marshall's do for the Project?

While job design at this point in time is not a top priority of the company, Mr. Falby acknowledged that it was needed. Corporate policy provides that local store managers exercise autonomy in hiring persons for their outlets.

Company: McDonald's Corporation

Contact: Clinton McCann
Assistant Personnel Manager

Food/Fast Food Preparation-Service

McDonald's Corporation provides its regional office a "certain amount" of autonomy in its personnel practices. Local managers have responsibility for hiring at the local level. Management training encourages a sensitivity to the needs of the people. Currently some Boston stores are employing handicapped persons. Mr. McCann is personally committed to our Project goals and his ability to take initiative has allowed the Corporation to become involved in local collaboration with school districts. With regard to hiring, Mr. McCann indicated seasonal variations in business influence the number of people being hired. During March or April hiring has traditionally increased, in his zeal to cooperate, Mr. McCann has indicated a willingness to bring together store managers for an orientation to the Career Accessibility Model. There appears to be flexibility at the local outlet to modify or adjust the work environment. Organizationally, approximately 70% of the outlets are franchised and 30% are corporate run stores. With regard to the latter, Mr. McCann has offered to assist the development of collaborative efforts with local school districts.

Company: Stop and Shop

Contact: Edward Cooney
Personnel Manager
Boston Supermarket Div.

Retail Sales/Food

At both the Corporate and Division level there is strong and positive support for the goals of the Career Accessibility Model. Because of Corporate structure, Project Staff have been encouraged to work at the Division level where there is greater understanding of specific job requirements in local outlets. The Corporation encourages and promotes career advancement and provides services related to career direction. Recognizing the need to consider contractual agreements with local unions in planning, Mr. Cooney expressed a positive interest in the CAM Model as being in line with corporate personnel goals.

Company: Texaco, Inc.

Contact: H. G. Ingram
Northeast Region Coordinator
Public Affairs

Transportation/Retail Service-Sales

Texaco, through Mr. Ingram, has exhibited a corporate concern for the issues related to hiring the handicapped. However, hiring practices are at the discretion of local managers. Therefore, there is an informal attempt to influence local management through marketing representatives who provide advice and counseling for local managers. Mr. Ingram has expressed a willingness to write a letter of endorsement and attempt to intervene for us through the Marketing Department. However, caution must be exercised and no undue pressure brought to bear on local managers.

In addition to local employment possibilities, Mr. Ingram has acknowledged the possibility of NJO's being developed in the regional offices in the Business and Office occupations.

Company: S. D. Warren Division
Scott Paper Company

Contact: Ronald Partridge
Division Personnel Manager

Manufacturing/Paper

S. D. Warren has an affirmative action plan regarding the hiring of the handicapped. Mr. Partridge exhibited a positive attitude toward the project and has indicated that his company could benefit from this approach. At this point, new job options identified within this company deal with central office staff, but because of the company's positive attitude and cooperation, the process could be expanded to other areas (manufacturing). Mr. Partridge readily accepted an invitation to serve on the Project Task Force.

Company: F. W. Woolworth

Contact: Patricia Martin
Personnel Supervisor

Retail/Discount Department Store

While Woolworth's does not have a specific company policy with regard to hiring the handicapped, it was stressed by Ms. Martin that corporate policy is very open. This manifests itself in the Boston Store where a mentally retarded person was hired simply to direct customers to appropriate counters and as a result of successful performance developed skills to allow her to "move up" to a cashier's job. With the Woolworth organization there are stores of varying sizes. Consequently, the hiring practices, which are exercised at the local level, will vary. This would suggest that analysis of a specific outlet and intensive dialogue with the local manager should take place in order to effect a collaborative effort. Project staff considers Woolworth's to be a most viable organization in which to effect the Career Accessibility Model.

Company: Zayre Corporation

Contact: Steve Sonis
Personnel Manager
John Sullivan
Manager, Zayre, Hanover

Retail/Discount Department Store

Starting at the corporate level with Mr. Sonis, the Project developed an effective relationship which continues to serve as a model for effective collaboration between school districts and local outlets. Mr. Sonis spent considerable time with Project staff at both an orientation session and follow-up meeting. Mr. Sonis was particularly helpful in "opening the door" to the Hanover store. He contacted John Sullivan, the Hanover manager, and the resultant meetings proved very productive. Having had prior experience with work study programs, Mr. Sullivan manifested quick insight to our Project. His analysis of data was comprehensive and thorough.

Zayre's provides a degree of flexibility in personnel matters to local managers. As a result, job redesign and work environment modification are viable at the local level and can be negotiated there. The Hanover store itself has been designated an "Authorized Training Store" for management. Mr. Sullivan indicated that the several job options which we negotiated would be acceptable to him, given the constraints of budget and seasonal variations in business.

SPECIFIC
TASK OUTLINE
Burger King

Occupation: Counter Person

Major Responsibilities

01. Maintains Good Customer Relations

02. Takes Orders for Food and Beverages

03. Serves Food and Beverages

04. Performs Other Serving Duties

05. Prepares Checks and Receives Payment

06. Maintains Necessary Supplies to Serve Meals

07. Performs Clean-Up Duties

08. Waits Under Specific Service Conditions

SPECIFIC
TASK OUTLINE
Burger King

Occupation: Counter Person

01. Maintains Good Customer Relations

   1. Receives customers

      -- greets properly
      -- asks if order is to stay or go

   2. Observes customer needs

      -- respects customer privacy
      -- responds to requests for service

   3. Communicates effectively with customer

      -- receives complaints
      -- communicates complaints to management
      -- provides general information

02. Takes Orders for Food and Beverages

   1. Answers questions regarding food

   2. Records or memorizes orders

   3. Calls in orders

   4. Estimates time of order

03. Serves Food and Beverages

   1. Serves non-alcoholic beverages

      -- coffee
      -- tea
      -- milk

   2. Receives food from cook

      -- assembles order and loads tray

   3. Serves food to customer

04. Performs Other Serving Duties

1. Prepares take-out orders

-- from counter

05. Prepares Checks and Receives Payment

1. Computes checks

-- totals food bill
-- computes tax
-- totals both bills
-- employs adding machine

2. Presents check to customer

-- provides information about payment
-- retotals check if necessary

3. Accepts payment

-- operates cash register
-- makes change

06. Maintains Necessary Supplies to Serve Meals

1. Maintains a well-supplied station

-- maintains condiments

2. Maintains counter supplies

-- checks coffee supply
-- other

3. Performs other duties

-- informs manager in emergency

07. Performs Clean-Up Duties

1. Cleans throughout day

-- sweeps
-- wipes counter
-- maintains health and safety standards
-- maintains attractive appearing station

2. Clears after customer departure

3. Cleans before closing

    - -- empties and washes relish and dessert containers
    - -- washes down supply station
    - -- washes tables and counters
    - -- washes coffee maker

4. Performs monthly cleaning duties as scheduled

08. Waits Under Specific Service Conditions - in Some Restaurants

1. Provides drive-in service

    - -- obtains order
    - -- relays order to kitchen
    - -- serves order on tray
    - -- computes check

BURGER KING

Career Development Chart

Manager

Assistant Manager

Hostess

- -

Waiter/Waitress (2)

Kitchen Worker (3)

Set-Up Person (3)

MARRIOTT

Career Development Chart

Manager

Assistant Manager

Hostess
General Salesperson
Nursery Person
Meat Clerk
Receptionist

Bartender
Pastry Chef
Recreation Aide
Waiter/Waitress
Hotel/Motel Clerk

Security Guard (1)
Housekeeper (3)
Dishwasher/Utility (3)
Kitchen Helper (3)

Sales Clerk Attendant (1)

Storekeeper (1)
Salad Tender/Utility (3)
Laundry Room Attendant (3)
Bus Boy/Utility (3)

MARSHALL'S

Career Development Chart

Store Manager

Assistant Store Manager

Buyer - Assistant Buyer

Customer Service Specialist - Cashier

Service Desk Clerk

Sales Clerk (1)

Mail Room Clerk (1)

Stockperson (2)

Ticket Maker (3)

Ticketer (3)

McDONALD'S

Career Development Chart

Manager

Assistant Manager

Grill Worker - Customer Service Specialist

Counterperson (2)

Utility/Maintenance/Bus (3)

Utility/Special Items (3)

STOP AND SHOP

Career Development Chart

Manager

Assistant Store Manager

Buyer

Dairy Clerk

Cashier

Customer Service Specialist

- -

General Clerk (2)

Deli Assistant (2)

Meat Clerk (2)

Bagger (3)

TEXACO

Career Development Chart

Manager

Mechanic

Cashier

- -

Service Station Attendant (1)

S. D. WARREN

Career Development Chart

Advertising Assistant

Customer Service Specialist

Secretary - Receptionist

- -

Office Aide (1)

Mail Room Attendant (2)

WOOLWORTH'S

Career Development Chart

General Manager

Associate Manager

Assistant Merchandise Supervisor

Customer Service Specialist

Assistant Buyer

Display Person

General Salesperson

Sales Correspondent

Buyer

Receptionist

Window Trimmer

- -

Stockperson (1)

Sales Clerk (1)

Assistant Window Trimmer (2)

Utility (3)

ZAYRE'S

Career Development Chart

Store Level	Corporate Level
Manager	Buyer
Assistant Manager	Advertising Assistant
Cashier	Assistant Buyer

- -

Store Level

Sales Clerk (1)

Customer Service Desk Attendant (1)

Waiter/Waitress (2)

Stock Person (2)

Fitting Room Clerk (2)

Ticketer (3)

THE GENERAL EMPLOYABILITY QUESTIONNAIRE

Research on the job adjustment of educable mentally retarded persons clearly indicates that the mastery of particular tasks is not an overwhelming problem. Rather, adjustment to a job is influenced much more extensively by social/employability variables that impact on a position.

The implication of this research for prevocational programs is that a great deal of attention should be given to the development of social/employability skills.

One problem facing educators is: What social/employability skills should take priority for any particular job? The answer appears to require at least a minimum of input from those who are most familiar with the job tasks and the role of the position in the organization, namely the employer.

ICR, as part of its first phase of research, has attempted to gather some relevant information on this issue. As part of its interaction with business representatives the Institute initiated the development of an instrument which captures the perceptions of employers in regard to those factors which are most critical to maintaining employment in their respective companies.

ICR believes that much more data of this kind must be collected and applied to the entire pre-vocational process for EMR's.

The General Employability Questionnaire

The General Employability Questionnaire (GEQ) (pp 4-5) was administered to personnel directors in eleven (11) companies. The instrument was designed to obtain information about the influence of certain factors on the ability of employers to adjust to and retain their jobs. In all, employers completed forty-seven (47) GEQ's corresponding to forty-seven (47) positions existing in the eleven (11) companies. Coupled with data acquired via follow-up interviews the GEQ serves as a method by which employers' views can be collected and transferred to appropriate instructional settings.

The present form of the GEQ asks employers to rate, on a four-point scale, the following twelve (12) variables in regard to the ability of an employee to retain a job in their respective companies.

1. Personal Needs
2. Transportation
3. Self Awareness
4. Interpersonal Skills
5. Independent Functioning
6. Decision Making
7. Physical/Manual Skills
8. Communication Skills
9. Work Habits
10. Personal Finance Management
11. Leisure Time Utilization
12. Friends/Family Relationships

Methodological Flaws

While the Questionnaire has helped capture a large quantity of important data, the GEQ is not without some methodological flaws. The major problem is that the general constructs to which employers are asked to respond are multistemmed. For example, in rating the criticalness of question one "caring for personal needs," the rater is confronted with four examples (dressing properly, grooming adequately, keeping physically fit, staying healthy). In evaluating an overall rating of 1 to 4, one is unable to determine if the value applies equally to all examples or if the employer had only one (or more) in mind at the time. This latter condition was verified on at least two occasions in the follow-up interviews.

Another drawback is sample size. The range of jobs per company is one (American Airlines) to nine (Marriott), and the range of occupations per cluster is four (Kitchen) to eleven (Management). Small numbers such as these leave generalizing open to question.

In the future, a revised version of the GEQ will be utilized to improve the accuracy of the data collected. Also, continuous storage of new information about occupations within and among a variety of companies should increase the sample to a more reasonable size.

Despite these difficulties, the initial use of the GEQ has indicated important methodological and conceptual needs with which future research should be concerned.

The Analysis

Keeping in mind the formative stage of the GEQ development, a comprehensive analysis of the data is nevertheless presented. This analysis serves two main purposes: (1) It provides a model format for systematizing and thinking about employer inputs via the GEQ and (2) it identifies some tentative trends and relationships which future research will need to address.

Summary of Major Findings

1. Employers tend to emphasize the importance of factors that are directly related to the work itself (work habits, transportation) rather than indirect factors such as leisure time and personal finances.
2. Employers tend to ascribe different job characteristics to different jobs.
3. Employers tend to give higher ratings on questions 1-9 when the job requires extensive interaction with customers (waiter/waitress vs stockperson).
4. Employers consistently rate transportation as a very critical variable in keeping a job.
5. Employers tend to place great concern on the community image of the company as conveyed by employees.

Key Implications for Prevocational Programs

1. Employers perceptions of social/employability factors should be sought out and catalogued along with the task requirements of jobs.
2. Prevocational programs should emphasize employability factors as well as actual job tasks.
3. In preparation for particular clusters of jobs, emphasis should be placed on social/employability characteristics most closely aligned with employer priorities.
4. Indirect employability factors should be emphasized for all placements.
5. Follow-up consultation with employers should take place in order to ascertain the impact of pre-placement efforts on particular jobs.

GENERAL EMPLOYABILITY QUESTIONNAIRE

HOW CRITICAL TO KEEPING THIS JOB IS A PERSON'S ABILITY TO:

		Not Critical		Very Critical	
		1	2	3	4
1.	care for his/her personal needs (dressing properly, grooming adequately, keeping physically fit, staying healthy)?	☐	☐	☐	☐
2.	know about and obtain transportation to work?	☐	☐	☐	☐
3.	demonstrate self awareness (identifying own emotions, accepting praise and criticism, coping with "rush" hours)?	☐	☐	☐	☐
4.	achieve socially responsible behavior and maintain good interpersonal skills (knowing roles, listening and responding, making and maintaining friendships, relating to customers, acting as part of a team)?	☐	☐	☐	☐
5.	be able to carry out independent functions (planning, taking initiative, working alone)?	☐	☐	☐	☐
6.	be able to make decisions and solve problems (understanding goals, looking at alternative, knowing where to find advice)?	☐	☐	☐	☐
7.	communicate adequately with others (speaking clearly, listening to others)?	☐	☐	☐	☐

HOW CRITICAL TO KEEPING THIS JOB IS A PERSON'S ABILITY TO:

		Not Critical		Very Critical	
		1	2	3	4
8.	demonstrate satisfactory physical-manual skills (balance, coordination, dexterity, stamina, endurance)?	☐	☐	☐	☐
9.	exhibit appropriate work habits and behaviors (following directions, working at satisfactory rate, accepting supervision, being punctual, demonstrating safety)?	☐	☐	☐	☐
10.	be able to manage his/her personal and family finances (keeping a budget, making wise expenditures, understanding credit, maintaining a check book, understanding fringe benefits, knowing how to use fringe benefits)?	☐	☐	☐	☐
11.	be able to utilize recreational and leisure time properly (competitive bowling team, camping, picnics, sports, company socials, church activities, hobbies)?	☐	☐	☐	☐
12.	maintain relationships with friends and relatives when off the job?	☐	☐	☐	☐

* Information in this questionnaire is derived in part from Project Price Working Paper #4.

Analysis

The analysis proceeds in two ways: (a) from company to variables and (b) from occupational clusters to variables. The twelve questions are viewed collectively (1-12) and by groupings (1-9) and (10-12). This latter split was devised in order to account for a clear trend by employers to view the first nine variables as impacting directly on employment and the last three as impacting indirectly.

In order to discriminate between high and low ratings, two arbitrary cut-off points have been identified and are used to facilitate discussion of the differences in ratings. Thus, a rating equal to or greater than 3.5 is considered very critical and a rating less than 2.0 is considered not critical.

In addition to the charts which are dispersed throughout the text, the appendix contains summaries of responses per job within each cluster.

Organization of Data

For the purpose of reporting the GEQ data, the eleven participating companies are subdivided into three groups:

1. Retail department stores (3) - Marshall's, Zayre's, Woolworth's.
2. Restaurants (3) - Burger King, McDonald's, Brigham's.
3. The rest (5) - American Airlines, Texaco, S. D. Warren, Marriott, Stop and Shop.

The forty-seven jobs have been divided by function into seven groups:

1. Management oriented (11) - 3 assistant store managers; 3 buyers; 1 assistant buyer; 2 general salespersons; 1 customer service; 1 advertising assistant.
2. Restaurant (7) - 3 waiter/waitress; 2 counter persons; 2 hostesses.
3. Office (5) - 1 mail room attendant; 1 office aide; 1 desk clerk; 1 sales correspondent; 1 receptionist.
4. Sales work (8) - 3 sales clerks; 3 cashiers; 2 service desk clerks.
5. Kitchen (4) - 1 meat clerk; 1 baker; 1 food handler.
6. Stockperson/Maintenance (6) - 4 stockpersons; 2 utility workers.
7. General (6) - 1 service station attendant; 1 ticket agent; 1 nursery person; 1 recreation aide; 1 window trimmer; 1 display person.

APPENDIX C

Company Contact Orientation Package

Name of Company ____________________

Contact Person ____________________

Luncheon Representative ____________________

Title ____________________

Responsibilities ____________________

____

____

____

Length of Service with Company ____________________

Does company have written policy on hiring the handicapped?

Yes ___ No ___

Is it available? Yes ___ No ___

Number of handicapped persons presently employed ____________

Positions held by the above ____________________

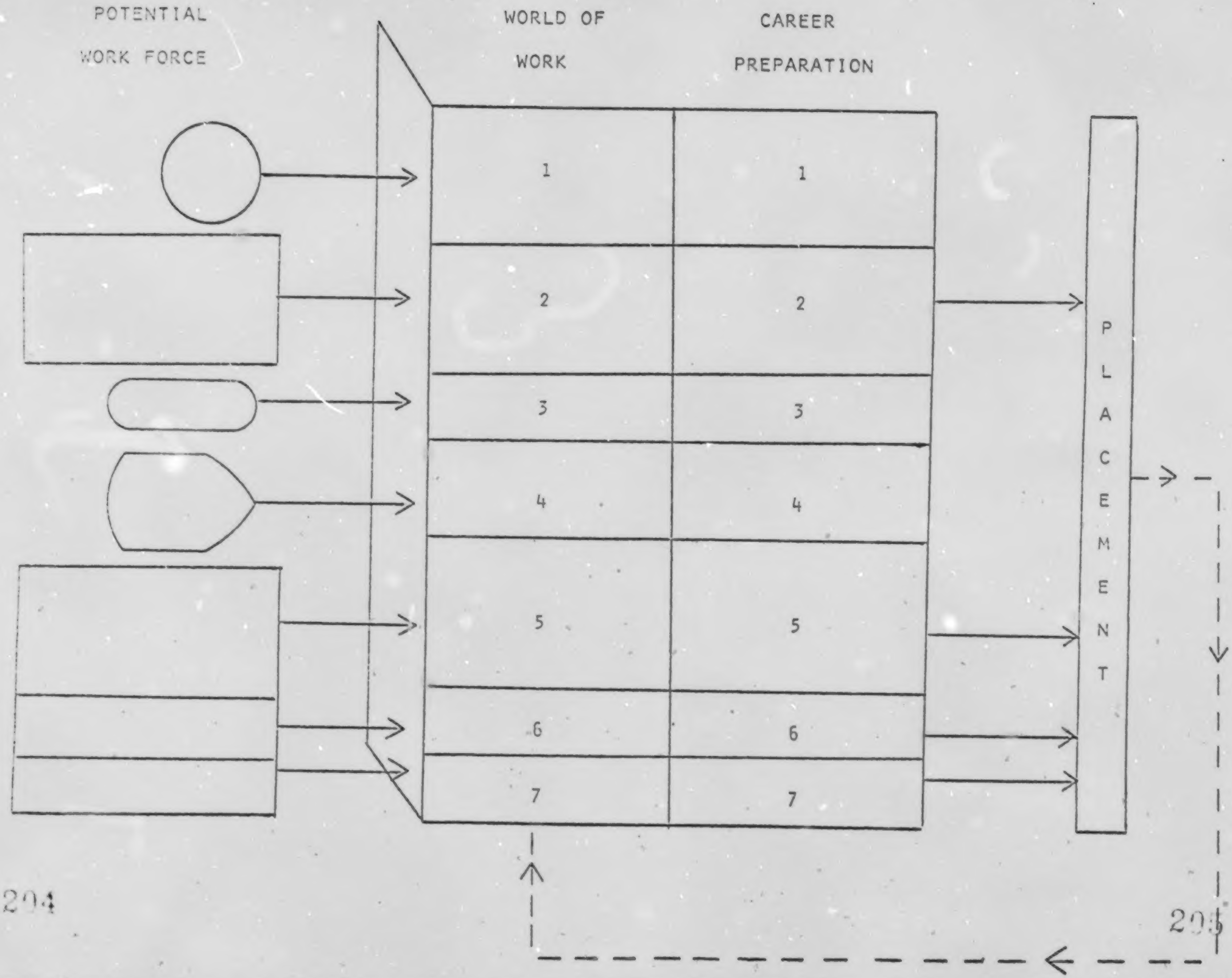
____

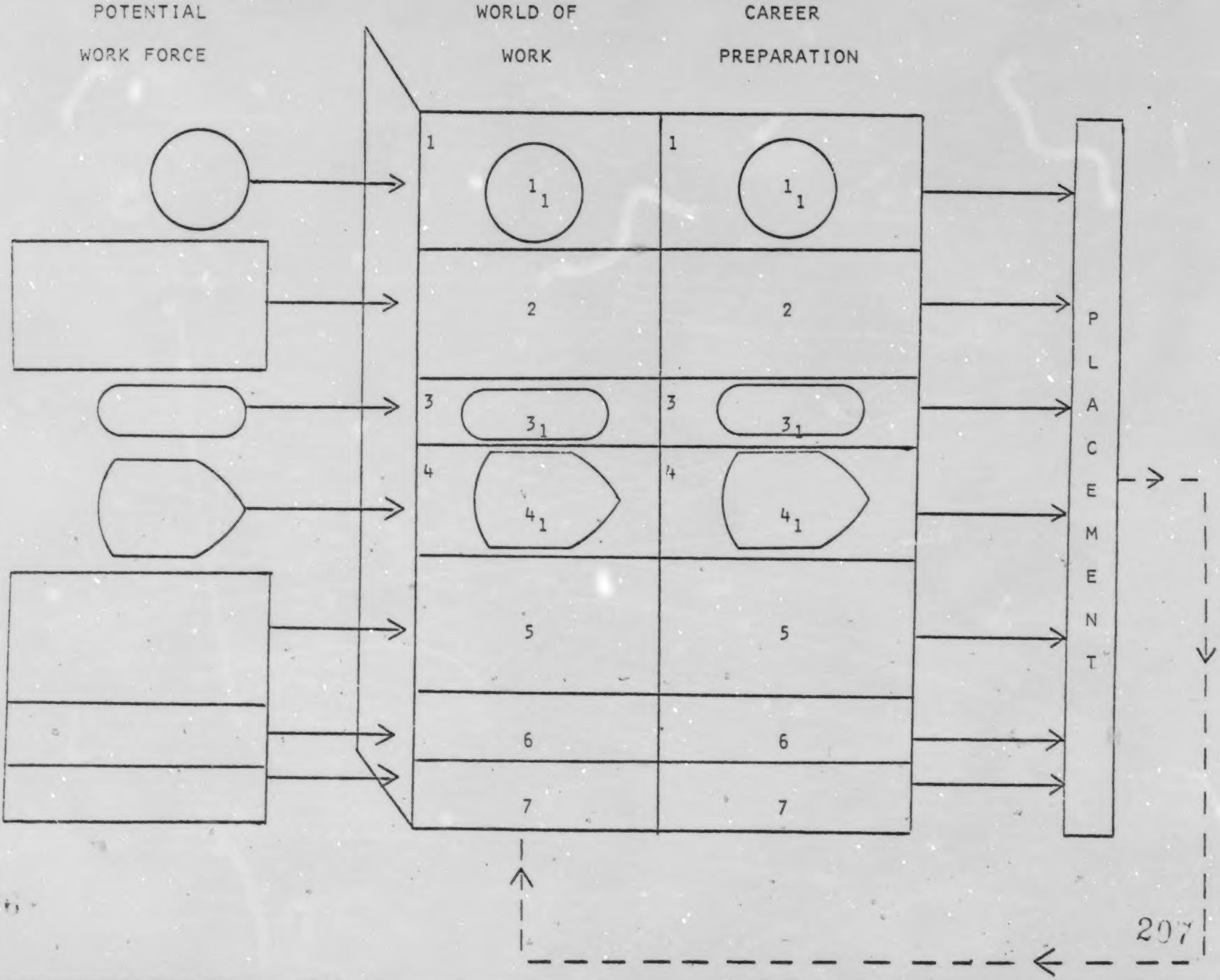
____

In the following list, check those jobs for which your company presently employs persons.

Buyer ____
Advertising Asst. ____
Assistant Store Manager ____
Real Estate Salesperson ____
Sales Correspondent ____
Bank Teller ____
Assistant Buyer ____
Meat Clerk ____
Field Interviewer ____
General Salesperson ____
Sales Clerk ____
Demonstrator ____

Display Person ____
Customer Service Spec. ____
Stock Person ____
Waiter/Waitress ____
Service Station Att. ____
Recreation Aide ____
Travel Counselor ____
Hotel/Motel Clerk ____
Florist Assistant ____
Nursery Person ____
Baker ____
Window Trimmer ____


POTENTIAL
WORK FORCE
WORLD OF
WORK
CAREER
PREPARATION
1
1
2
2
3
3
4
4
5
5
6
6
7
7
P
L
A
C
E
M
E
N
T


POTENTIAL WORK FORCE
WORLD OF WORK
CAREER PREPARATION
1
1_1
1
1_1
2
2
3
3_1
3
3_1
4
4_1
4
4_1
5
5
6
6
7
7
PLACEMENT

EXECUTIVE SUMMARY

NEW CAREER OPTIONS MODEL

November 1976

Executive Summary:

The Institute for Career Research has been awarded a grant from the United States Office of Education to explore the world of work in an attempt to derive a model for maximizing the employment prospects of students having special needs.

This landmark study has been so designed to include a well structured interaction with business and industry. Among other things, it is this interaction, wherein ICR seeks not a rubber stamp approval of what might be termed "noble endeavors;" but, rather, inputs from business and industry which will literally affect the lives of thousands of persons.

There is around the country a veritable "hue and cry" for more school/business/industry interaction. Much of the response to this call has been token efforts, at best resulting in a general agreement that something "must be done." ICR through this grant proposes to do something.

Essentially what we will do, with the assistance of business and industry, is to:

(1) Expand the number of job options open to students with special needs. Capitalizing on ability rather than disability by:

- breaking down jobs into discrete performance tasks

- comparing the breakdown to individual abilities of special needs students
- reassembling attainable tasks into new career options.

(2) Develop a data bank job performance tasks which will directly impact on the preparation for placement and successful job maintenance of the target population by:

- validating with business and industry and store configurations of attainable performance tasks (new career options)
- supplying employers with results of new career options.

(3) Develop curriculum which will prepare students for the new career options by:

- developing individualized learning packages
- field testing the learning packages
- modifying, if necessary, and disseminating to appropriate learning sites.

The benefits to be accrued from such an approach are threefold.

(1) Business, industry, education and the government will assist in the maximization of human potential for all students.

(2) Educators will have for the first time a comprehensive program of career potentials for the target population.

(3) Business and industry will be able to make its needs known, realizing that those needs will significantly affect the course of student learning.

(4) Employers will be able to tap a new source of capable reliable workers.

While ICR recognizes fully the constraints on time which influence our partners in business and industry, we nevertheless need, and actively seek, the support and inputs of the employing community. Without their assistance we will once again experience education for the world of work being developed in a vacuum. We wish to avoid this at all costs and will do all we can to limit the time commitments necessary, without diluting our ultimate goals.

14,00 00 00 00 OFFICE OCCUPATIONS
14,03 00 00 00 FILING, OFFICE MACHINES, AND GENERAL OFFICE CLERICAL OCCUPATIONS
14,03 02 00 00 FILE CLERKS

COMMENT: NEW JOB OPTION ANALYSIS

JOB RELATION

2013681 LEGAL SECRETARY	☐ 2013682 MEDICAL SECRETARY	☐ 2013683 SECRETARY	☐ 2023881 STENOGRAPHER ☐
2063881 FILE CLERK	☐ 2093881 CLERK - GENERAL	☐ 2093882 CLERK - TYPIST	☐ 2373681 RECEPTIONIST ☐

CONDITION	100 PIECES OF CORRESPONDENCE TO BE FILED, FILING CABINET, ESTABLISHED FILING SYSTEM.
PERFORMANCE	FILE CORRESPONDENCE ACCORDING TO THE SUBJECT FILING SYSTEM,
EXTENT	SO THAT THEY MAY BE EASILY RETRIEVED! 100PERCENT ACCURACY PER ESTABLISHED FILING SYSTEM! 2 HRS.

OBJECTIVES ARE CODED 'ATTAINABLE AS STATED' BY -(A), 'ATTAINABLE WITH MODIFICATION' BY -(M), 'UNDETERMINED BY -(-)

HEARING IMPAIRED		MENTALLY RETARDED		VISUALLY IMPAIRED		SPEECH IMPAIRED	PHYSICALLY IMPAIRED					EMOTIONALLY DISTURBED	
HD-HD	DEAF	EMR	TMR	PT-ST	BLIND		1-LEG	1-ARM	HEMI	PARA	QUAD	MOD	SVR
1-(A)	2-(-)	3-(A)	4-(-)	5-(A)	6-(M)	7-(A)	8-(A)	9-(A)	10-(-)	11-(A)	12-(-)	13-(A)	14-(-)

PREREQUISITE LEARNING	COMPONENT TASKS	ENVIRONMENT	CONCEPTS
KNOWLEDGE OF ESTABLISHED SUBJECT FILING SYSTEM	FILE EACH PIECE OF CORRESPONDENCE IN FILE CABINET BY SUBJECT ACCORDING TO ESTABLISHED FILING SYSTEM	100 PIECES OF CORRESPONDENCE FILING CABINET ESTABLISHED FILING SYSTEM	CL27 FILING CL17 CORRESPONDENCE A049 ACCURACY Y123 ORGANIZATION

```
CTIONAL PROGRAM AREA:
.00 00 00 00      OFFICE OCCUPATIONS
.00 00 00 00      FILING, OFFICE MACHINES, AND GENERAL OFFICE CLERICAL OCCUPATIONS
.03 02 00 00      FILE CLERKS

MMENT: NEW JOB OPTION ANALYSIS

T RELATION

13681 LEGAL SECRETARY        ☐ 2013682 MEDICAL SECRETARY    ☐ 2013683 SECRETARY           ☐ 2023881 STENOGRAPHER     ☐
63881 FILE CLERK             ☐ 2093881 CLERK - GENERAL      ☐ 2093882 CLERK - TYPIST      ☐ 2373681 RECEPTIONIST     ☐

              CONDITION      100 PIECES OF CORRESPONDENCE TO BE FILED, FILING CABINET, ESTABLISHED FILING SYSTEM..
              PERFORMANCE    FILE CORRESPONDENCE ACCORDING TO NUMERIC FILING SYSTEM.
              EXTENT         SO THAT THEY MAY BE EASILY RETRIEVED; 100PERCENT ACCURATE PER ESTABLISHED FFLING SYSTEM; 2 HRS.

JECTIVES ARE CODED 'ATTAINABLE AS STATED' BY -(A), 'ATTAINABLE WITH MODIFICATION' BY -(M), 'UNDETERMINED BY -(-)
**********************************************************************************************************************
   HEARING      *    MENTALLY      *   VISUALLY     * SPEECH  *               PHYSICALLY                  *   EMOTIONALLY   *
   IMPAIRED     *    RETARDED      *   IMPAIRED     *IMPAIRED*                IMPAIRED                   *   DISTURBED     *
**********************************************************************************************************************
 HD-HO  *  DEAF  *  EMR   *  TMR   *  PT-ST  *  BLIND  *         *  1-LEG  *  1-ARM  *  HEMI  *  PARA  *  QUAD  *  MOD  *  SVR  *
        *        *        *        *         *         *         *         *         *        *        *        *       *       *
 1-(A)  * 2-(A)  * 3-(A)  * 4-(-)  *  5-(A)  *  6-(M)  *  7-(A). *  8-(A)  *  9-(A)  * 10-(-) * 11-(A) * 12-(-) * 13-(A) * 14-(-) *
**********************************************************************************************************************

       PREREQUISITE                  COMPONENT                         ENVIRONMENT                        CONCEPTS
         LEARNING                      TASKS
**********************************************************************************************************************
 KNOWLEDGE OF ESTABLISHED  *  ARRANGE CORRESPONDENCE     *  100 PIECES OF CORRESPON-     *  CL27 FILING                   *
  FILING SYSTEM            *   IN NUMERICAL ORDER        *   DENCE                       *  CL17 CORRESPONDENCE           *
 KNOWLEDGE OF NUMERICAL    *  FILE EACH PIECE OF CORR-   *  FILING CABINET               *  A049 ACCURACY                 *
  SEQUENCING               *   ESPONDENCE IN FILE CAB-   *  ESTABLISHED FILING SYST-     *  CL44 NUMERICAL SEQUENCING     *
                           *   INET ACCORDING TO NUM-    *   EM                          *  Y123 ORGANIZATION             *
                           *   ERIC FILING SYSTEM.       *                               *                                *
**********************************************************************************************************************
```

4. The sub classification which now represents a potential employment situation is then reviewed by a task force of employers and vocational and special educators for the purposes of (a) refining the tasks into teachable skill statements, and (b) sequencing the skills for instructors.

I. Task related performance objectives.

1. Condition: File cabinet drawer, hanging files, specified information to be incorporated into chronological filing system, typewriter, plain hanging tabs.

   Performance: Set up a chronological filing system.

   Extent: Chronological filing system set up correctly in proper sequence in file cabinet drawer, using specified information typed neatly and accurately on plain tabs; no errors in typing; 45 minutes.

2. Condition: File cabinet drawer, hanging files, plain hanging file tabs, specified information to be incorporated into geographic filing system, typewriter.

   Performance: Set up a geographic filing system

   Extent: Geographic filing system set up correctly in appropriate sequence in file cabinet drawer, using specified information typed neatly and accurately on plain tabs as divisions, no errors in typing, 1 hour.

3. Condition: File cabinet drawer, hanging files, specified filing information, plain hanging file tabs, typewriter

   Performance: Set up a subject filing system

   Extent: Subject filing system set up correctly in file drawer using specified information as subject headings, files neatly and accurately labelled, 30 min.

4. Condition: 10 unrelated pieces of material, file cabinet drawer, implement (typerwiter).

   Performance: Create new numerical files

   Extent: 10 files created according to numerical filing system clearly recorded with all information necessary for proper reference, 1 hour.

5. Condition: A shelf or shelves divided into twenty-six sections and twenty six labels, label information, pen.

   Performance: Label each section in the shelve's alphabetically.

   Extent: 100 percent accurately so each one will have a different letter of the alphabet, 10 min.

6. Condition: Twenty-six manilla folders, alphabetical filing information, labels.

   Performance: Label the manilla folders alphabetically.

   Extent: 100 percent accurately, so each folder has a different letter fo the alphabet, 10 min.

7. Condition: 100 pieces of correspondence to be filed, filing cabinet, established filing system.
Performance: File correspondence according to the subject filing system
Extent: So that they may be easily retrieved; 100 percent accuracy per established filing system; 2 hrs.

8. Condition: 20 pieces of unrelated material, file cabinet drawer set up in geographic filing system.
Performance: File 20 pieces of unrelated material
Extent: 20 pieces of unrelated material filed correctly according to geographic filing system in file cabinet drawer, 30 minutes.

9. Condition: 15 pieces of unrelated material, file cabinet drawer with hanging file set up according to chronologically ordered filing system.
Performance: File 15 pieces of unrelated material.
Extent: 15 pieces of unrelated material filed in correct chronological order, no errors, 100 percent as per chronologically ordered filing system, 25 minutes.

10. Condition: 5 memos to be filed, established office filing system, writing materials.
Performance: File and cross reference memos.
Extent: All memos are filed, notations made 100% accurately as to where else in the filing system the memo information is filed. 30 min.

11. Condition: 5 updated versions of existing filed materials, existing files and establishing filing system.
Performance: File updated versions of existing filed materials.
Extent: All outdated materials replaced with updated versions. Files revised 100% accurately and completely. 15 min.

12. Condition: Instructions to obtain specified file folder from file cabinet, file cabinet, established office filing system.
Performance: Obtain indicated file folder from file cabinet.
Extent: Specified file folder located quickly on basis of established office filing system, name on folder checked for accuracy, folder removed, from file cabinet neatly, 100 percent as per instructions.

13. Condition: Pre-set up file, colored outguide to be placed in space where any folder is removed to show it is missing, S.O.S. manual.
Extent: Outguide is properly placed in file with 100 percent accuracy according to procedure outlined in standard office secretarial manual; 15 min.

2. Work environment skills:
    1. Can identify and use equipment and materials (i.e. file cabinet, folders, index cards, typewriter, etc.)
    2. Maintains orderly files
    3. Maintains file security
    4. Keeps materials in stock

3. Personal/Social Skills:
    1. Reports to work on time
    2. Keeps neat and clean
    3. Able to follow directions - verbal/written
    4. Initiates requests for new work

4. Basic Academic Skills:
    1. Can distinguish between colors
    2. Can count to 100
    3. Reads and writes alphabet
    4. Reads names of people, places and things
    5. Can distinguish between various types of business communications forms (i.e. letters, memos, invoices, reports, etc.)

5. Appropriate social/employment and educational information is appended to each potential employment situation, thus making it a new career option.

OTHER TITLES: Coding File Clerk
Records Clerk

FINITION: Files correspondence, cards, invoices, receipts, and other records in alphabetical or numerical order, or according to subject matter phonetic spelling or other system.

D.O.T. NO. 206.388

NTRY LEVEL JOBS:

ELATED JOBS:

PLOYMENT OUTLOOK:
Good

OURS:
40/wk.

VERAGE EARNINGS:
$80 - $88/wk.

ION ASSOCIATION AFFILIATION:

UGGESTED CAREER ELECTIVES:

OURSE LOCATION:

O.T. LOCATION:		
I	page	271
II	"	276
I	"	35
II	"	15

TOTAL EDUC/TRNG REQUIREMENTS:	
H. S. Grade Completed: 10	
11	
12	
PG	
On-the-Job Training	X
Apprentice Training	
Technical Institute	
Business College	
Junior or Community College	
4-year College Grad.	
Graduate School	

HIGH SCHOOL COURSE OF STUDY:	
Career Development Program:	
Architectual Careers	
Automotive Careers	
Business Careers	X
Electro Careers	
Graphic Arts Careers	
Health Careers	
Structural Careers	
Specific Occupational Education	

SPECIAL REQUIREMENTS:

CONDITIONS:		
1	Inside	X
	Outside	
	Both	
2	Cold temp	
3	Hot temp	
4	Wet, humid	
5	Noise, vibration	
6	Hazards	
7	Fumes	
	Odors	
	Toxic	
	Dust	
	Poor Ventilation	

APTITUDES:		
1	General Learning	X
2	Verbal Ability	X
3	Numerical Ability	
4	Spatial Ability	
5	Form Perception	
6	Clerical Perception	X
7	Motor Coordination	
8	Finger Dexterity	
9	Manual Dexterity	
10	Eye–Hand–Foot Coordination	
11	Color Discrimination	

PHYSICAL DEMANDS:		
1	Strength	L
2	Climbing, balancing	
3	Stooping, kneeling, crawling	
4	Manual dexterity	X
5	Talking, hearing	X
6	Visual acuity	/

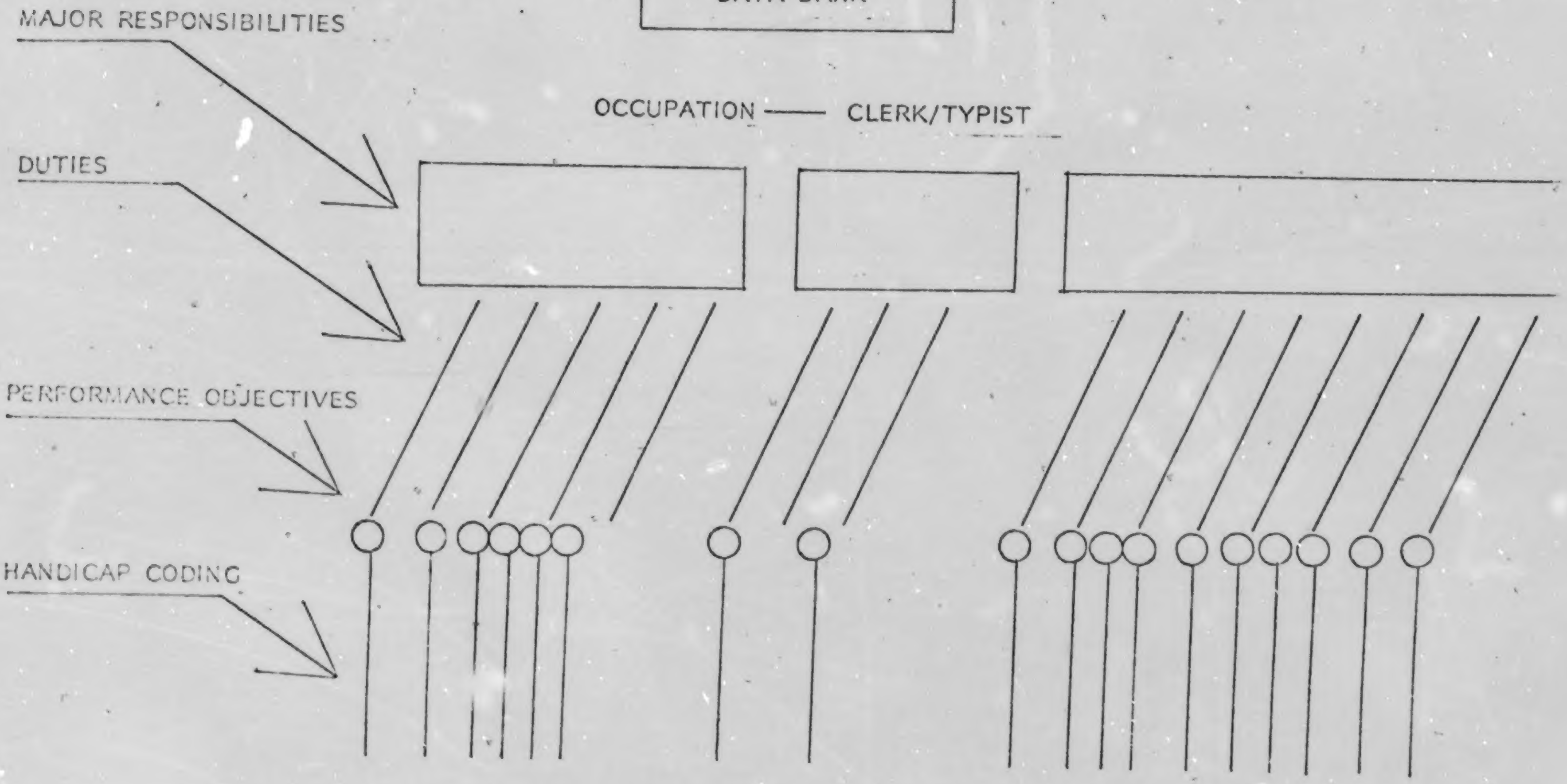
INTERESTS:	
1	Dealing with things & objects
2	Business contact with people
3	Routine, system
4	Social welfare
5	Prestige, esteem
6	Communication of ideas
7	Science & technology
8	Abstraction, creativity
9	Machines, procedures
0	Tangible results

TEMPERAMENT:	
1	Varied duties, frequent change
2	Repeated, set procedures
3	Matching specified instructions
4	Directing & planning for others
5	Working with others
6	Working alone & apart
7	Influencing other people's ideas
8	Risks, unexpected events, emergencies
9	Making empirical judgments, decisions
0	Analyzing facts and figures
X	Interpreting personal feelings
Y	Precision, accuracy

RELATION TO:		
1 Data:	3	compiling
2 People:	8	no relation
3 Things:	8	no relation

PROJECT CAREER

DATA BANK



OCCUPATION —— CLERK/TYPIST

MAJOR RESPONSIBILITIES

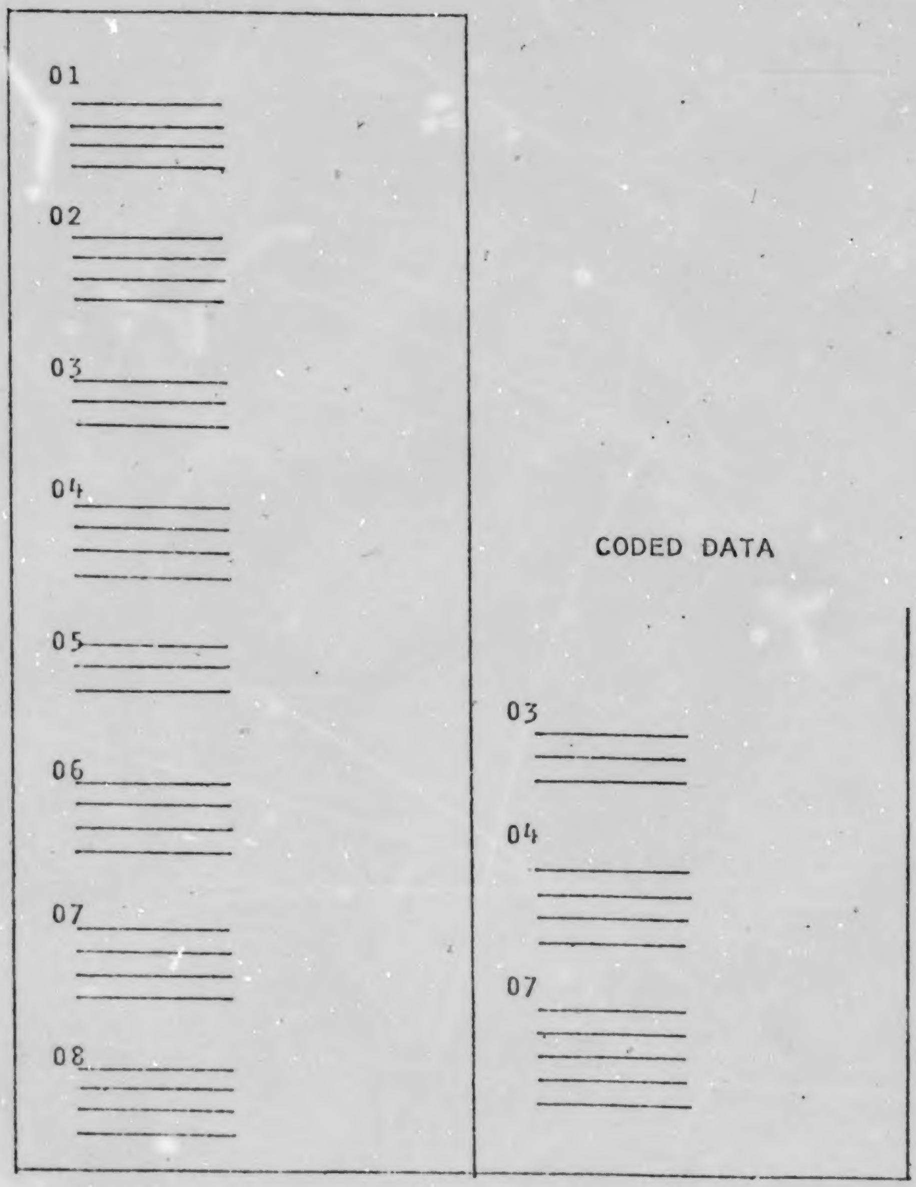
DUTIES

PERFORMANCE OBJECTIVES

HANDICAP CODING

TASK OUTLINE

CLERK TYPIST


01
02
03
04
05
06
07
08
CODED DATA
03
04
07

EDUCATING THE HANDICAPPED FOR THE REAL WORLD OF WORK

This package of information has been prepared for "Educating the Handicapped for the Real World of Work". It consists of: 1) an explanation of the New Job Options Process, 2) an attached Resource Guide for "Occupational Preparation for the Handicapped", 3) a listing of related ERIC documents, and 4) an annotated bibliography of instructional materials for Business, Marketing, and Management, Job Placement, and a publisher list.

The New Job Options Process section presents the steps in the process in a schematic format followed by an example of the information produced in each phase. The samples used are drawn from Project CAREER's work although other sources of task analysis information and performance objectives could be substituted at the user's discretion. The Clerk General example has been pursued for the purpose of simplifying the model. Obviously, once the process is understood and adopted it may be applied to virtually any occupation and can produce one or more sub groups of employable tasks.

The final two components of the process are of particular importance since the information rendered provides a base for curriculum development activities. The bottom line of the process described is a set of valid information upon which programs may be built for students with special needs.

The Resource Guide lists journals, microfiche materials, books, non-print references, and professional associations concerned with occupational preparation for the handicapped. An order form is included for easy ordering of microfiche. The CEDIS Microfiche File contains documents developed in Massachusetts and is an ongoing collection that is constantly growing. We encourage you to submit materials you have developed to CEDIS so they can easily be shared with other interested educators!

Citations from the instructional materials annotated bibliography were selected from *To Serve Those Who Are Handicapped: Procedures and Format to Implement A Model Career Education Program for the Handicapped*, which was developed by the Technical Education Resource Centers, Inc. -- Champaign, Illinois (Project Director -- Claire Szoke) in conjunction with the Springfield, Illinois Public Schools.

We hope this information will be helpful to you.

NEW JOB OPTIONS PROCESS DIAGRAM

New Job Options Model

1. Selected occupations broken down into sub classifications in a structured interview with employer (using Project CAREER task outlines).

2. Sub classifications compared to Project CAREER performance objectives which have been coded for attainability by handicapped individuals.

3. Where the results of the above comparison reveal that a specific handicapped group (i.e. EMR, Deaf) has a high probability of being able to accomplish the tasks included in the sub classification, the employer is apprised and established a potential commitment to hire such a person for the sub classification.

4. The sub classification which now represents a potential employment situation is then reviewed by a task force of employers and vocational and special educators for the purposes of (a) refining the tasks into teachable skill statements, and (b) sequencing the skills for instructors.

5. Appropriate social/employment and educational information is appended to each potential employment situation, thus making it a new career option.

1. Selected occupations broken down into sub classifications in a structured interview with employer (using Project CAREER task outlines).

TASK OUTLINE

Occupation: Clerk General

Major Responsibilities

01. Acts as Receptionist

02. Types

03. Performs Clerical Tasks

04. Personally Assists Employer

05. Performs Mailhandling Duties

06. Files

07. Secures Information

Occupation: Clerk General

01. Acts as Receptionist

1. Receives Visitors

-- greets appropriately
-- ascertains nature of visit
-- dispenses information
-- routes to appropriate office

2. Answers incoming telephone calls

-- gives company name and greeting
-- transfers call to appropriate office
-- answers inquiries of caller
-- records messages

02. Types

1. Operates Typewriter

-- standard electric model
-- standard manual

2. Types various material

-- business letters
-- reports
-- tabulations
-- business forms

3. Proofreads typed material

-- typographical errors
-- grammatical errors
-- omissions

4. Corrects errors

-- with eraser
-- by using correc-type

5. Maintains typewriter

   - -- changes ribbon
   - -- provides minimum service
   - -- orders supplies for typewriter

03. Performs Clerical Tasks

1. Maintains supplies

   - -- takes inventory
   - -- obtains quotations
   - -- orders various supplies
   - --
   - -- makes out requisitions
   - -- approves requisitions made out by others
   - -- inspects material received for completeness and damage
   - -- distributes supplies
   - -- routes shipment of materials
   - -- records daily shipments
   - -- revises stock list
   - -- revises catablog
   - -- weighs catalog
   - -- counts items
   - -- keeps desks equipped with office supplies

2. Handles employee business

   - -- checks tally sheets on various jobs
   - -- keeps daily attendance
   - -- keeps records of territory assigned salesmen
   - -- prepares accident reports
   - -- sends out notices to employees
   - -- posts notices
   - -- checks personnel of committees
   - -- looks up names and addresses

3. Observes legalities

   - -- acts as notary public
   - -- checks on observance of various laws
   - -- secures government permits
   - -- performs work involving customs and tariff regulations

4. Performs other miscellaneous tasks

    -- prepares signs, posters or other graphic materials
    -- changes dates on rubber stamp
    -- changes calendar
    -- makes notes for next day's work
    -- renews newspaper and magazine subscriptions
    -- compiles periodic report
    -- collates and staples duplicated materials

04. Personally Assists Employer

1. Maintains employer's desk

    -- dusts
    -- straightens
    -- places daily newspaper and magazines on desk

2. Prepares travel arrangements for employer

    -- supplies employer with records, papers needed on trips, interviews, etc.
    -- makes out itinerary or schedule
    -- obtains trip reservations and tickets
    -- makes hotel reservations
    -- applies for passports or visas

3. Performs other duties for employer

    -- scans newspaper for items of interest to employer
    -- keeps calendar with appointments for employer
    -- makes preparations for meetings

05. Performs Mailhandling Duties

1. Packages mail

    -- stuffs
    -- bundles
    -- wraps and ties
    -- sorts

2. Transports mail

    -- mailroom
    -- mailbox
    -- post office

3. Calculates postal rates

   - -- parcel post
   - -- bulk
   - -- first class mail

4. Obains postage

   - -- purchases postage
   - -- uses franking-permit privileges
   - -- registers or certifies mail
   - -- insures mail
   - -- keeps postage meter record

5. Traces mail

6. Maintains mailing list

   - -- prepares mailing list
   - -- distributes mailing list
   - -- checks mailing list

7. Distributes mail

   - -- sorts
   - -- delivers

8. Operates mail-handling machines

   - -- postage meter
   - -- addressing machine
   - -- stuffing machine
   - -- folding machine

9. Obtains mailing material from post office

   - -- certified
   - -- registered
   - -- stickers
   - -- rate sheets

06. Files

1. Sorts files

   - -- by number
   - -- by name
   - -- by topic or subject

-- by city, state or region
-- by date
-- by sound (soundex)
-- handles cross references

2. Updates Files

-- revises files
-- transfers records to inactive files
-- disposes of unnecessary records

3. Accounts for and Maintains Incoming/Outgoing Files

-- checks out materials from files to employees
-- searches for lost files
-- follows up released materials

4. Orders filing equipment

-- index cards
-- file drawers
-- file tabs

07. Secures Information

1. Secures information from office books and manuals

-- dictionary
-- secretarial handbook
-- telephone directory
-- thesaurus
-- company manual

2. Secures travel information

-- hotel reference books
-- city directory
-- timetables
-- atlas
-- maps

3. Secures postal information

-- U.S. zip code directory
-- U.S. postal manual

4. Consults other general references

-- newspapers
-- magazines
-- library card indexes
-- encyclopedia
-- almanac
-- technical manuals
-- Reader's Guide to Periodic Literature

2. Sub classifications compared to Project CAREER performance objectives which have been coded for attainability by handicapped individuals.

NEW JOB OPTION ANALYSIS SHEETS

D.O.T. # 209-588-(1)

Clerk General
(Employer: MEEI)

06. Files

1. Sort files

    -- by number
    -- by name
    -- by topic or subject
    -- by city, state or region
    -- by date
    -- by sound (soundex)
    -- handles cross references

2. Updates files

    -- revises files
    -- transfers records to inactive files
    -- disposes of unnecessary records

3. Accounts for and maintains incoming/outgoing files

    -- checks out materials from files to employees
    -- searches for lost files
    -- follows up released materials

4. Orders filing equipment

    -- index cards
    -- file drawers
    -- file tabs

3. Where the results of the above comparison reveal that a specific handicapped group (i.e. EMR, Deaf) has a high probability of being able to accomplish the tasks included in the sub classification, the employer is apprised and established a potential commitment to hire such a person for the sub classification.

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COMMENT: NEW JOB OPTION ANALYSIS                                                                              *** GATHERED

DOT RELATION

2093891 CLERK - GENERAL

                  CONDITION       GIVEN INACTIVE ACCOUNTS, FILES.
                  PERFORMANCE     TRANSFER RECORDS FROM ACTIVE TO INACTIVE FILE.
                  EXTENT          SO THAT NO INACTIVE ACCOUNTS ARE IN THE ACTIVE FILE.

OBJECTIVES ARE CODED 'ATTAINABLE AS STATED' BY -(A), 'ATTAINABLE WITH MODIFICATION' BY -(M), 'UNDETERMINED BY -(-)
****************************************************************************************************************************
*     HEARING      *     MENTALLY      *     VISUALLY     * SPEECH  *                 PHYSICALLY                   *  EMOTIONALLY   *
*     IMPAIRED     *     RETARDED      *     IMPAIRED     *IMPAIRED *                  IMPAIRED                    *   DISTURBED    *
****************************************************************************************************************************
*  HD-HS  *  DEAF  *  EMR   *   TMR    *  PT-ST *  BLIND  *         *  1-LEG  *  1-ARM  *  HEMI  *  PARA  *  QUAD  *  MOD   *  SVR  *
*         *        *        *          *        *         *         *         *         *        *        *        *        *       *
*  1-(A)  *  2-(A) *  3-(A) *  4-(M)   *  5-(A) *  6-(M)  *  7-(-)  *  8-(A)  *  9-(A)  * 10-(A) * 11-(A) * 12-(A) * 13-(A) * 14-(A) *
****************************************************************************************************************************

        PREREQUISITE                  COMPONENT                          ENVIRONMENT                          CONCEPTS
          LEARNING                      TASKS
****************************************************************************************************************************
*     KNOWLEDGE OF FILING      *   REMOVE ALL INACTIVE ACC-  *     INACTIVE ACCOUNTS LIST    * Y151 RECORD KEEPING          *
*                              *    OUNTS FROM ACTIVE FILE   *     ACTIVE FILES              * CL27 FILING                  *
*                              *    AS PER LIST              *     INACTIVE FILES            * A049 ACCURACY                *
*                              *   PLACE INACTIVE ACCOUNTS   *                               * D083 EFFICIENCY              *
*                              *    IN INACTIVE FILE ACCOR-  *                               *                              *
*                              *    DING TO PROPER FILING    *                               *                              *
*                              *    SYSTEM USED BY COMPANY   *                               *                              *
****************************************************************************************************************************
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.. 02 00 00      FILE CLERKS

...: NEW JOB OPTION ANALYSIS
                                                                                              *** GATHERED *

.. RELATION

..3841 CLERK - GENERAL

              CONDITION      MATERIALS TO BE FILED, MAGNETIC FILING EQUIPMENT, ESTABLISHED FILING SYSTEM.
              PERFORMANCE    FILE MATERIALS IN MAGNETIC FILING EQUIPMENT.
              EXTENT         SO THAT YOU OPERATE EQUIPMENT WITH 100% ACCURACY WITH RESPECT TO EQUIPMENT MANUAL; FILE ARE
                              100% ACCURATE AS TO ESTABLISHED SYSTEM.

..ECTIVES ARE CODED ;ATTAINABLE AS STATED; BY -(A); ;ATTAINABLE WITH MODIFICATION; BY -(M); ;UNDETERMINED BY -(-)
*****************************************************************************************************************
  HEARING     *    MENTALLY      *     VISUALLY     * SPEECH  *                  PHYSICALLY                      *   EMOTIONALLY   *
  IMPAIRED    *    RETARDED      *     IMPAIRED     *IMPAIRED *                   IMPAIRED                       *   DISTURBED     *
*****************************************************************************************************************
HD-HD * DEAF  *  EMR   *  TMR    *  PT-ST * BLIND   *         *  1-LEG  *  1-ARM  *  HEMI   *  PARA   *  QUAD   *  MLD   *  SYR   *
1-(A) * 2-(A) * 3-(A)  * 4-(-)   * 5-(A)  * 6-(M)   * 7-(-)   * 8-(A)   * 9-(A)   * 10-(A)  * 11-(A)  * 12-(A)  * 13-(A) * 14-(A) *
*****************************************************************************************************************

      PREREQUISITE                    COMPONENT                       ENVIRONMENT                     CONCEPTS
        LEARNING                        TASKS
*****************************************************************************************************************
  KNOWLEDGE OF FILING       *   PLACE MATERIAL TO BE FI-  *   MATERIALS TO BE FILED          * A049 ACCURACY                    *
  SKILL IN USE OF MAGNETIC  *    LED IN MACHINE           *   MAGNETIC FILING EQUIPME-       * CL01 ACCOUNTING (FINANCIAL R-    *
   FILING EQUIPMENT         *   PRESS BUTTON TO ACTIVATE  *    NT                            *           ECORDS)                *
                            *    MACHINE FOR SORTING CY-  *   ESTABLISHED FILING SYST-       * CL05 ALPHABETIZATION             *
                            *    CLE                      *    EM                            * Y022 AUTOMATION                  *
                            *   REMOVE SORTED MATERIAL    *                                  * CL14 CHRONOLOGICAL ORDER         *
                            *    FILE ACCORDING TO ESTA-  *                                  * Y053 DATA                        *
                            *    BLISHED SYSTEM           *                                  * Y054 DATA PROCESSING             *
                            *                             *                                  * D063 EFFICIENCY                  *
                            *                             *                                  * CL27 FILING                      *
                            *                             *                                  * CL44 NUMERICAL SEQUENCING        *
                            *                             *                                  * Y151 RECORD KEEPING              *
*****************************************************************************************************************
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UCTIONAL PROGRAM AREA: 140302 HANDICAPPED: AA A- AM A AAAAA AA

07 00 00 OFFICE OCCUPATIONS

07 00 00 FILING, OFFICE MACHINES, AND GENERAL OFFICE CLERICAL OCCUPATIONS

07 00 00 FILE CLERKS

NT: NEW JOB OPTION ANALYSIS

ELATION

HI LEGAL SECRETARY	☐ 2013682 MEDICAL SECRETARY	☐ 2013683 SECRETARY	☐ 2023881 STENOGRAPHER ☐
HI PERSONNEL CLERK	☐ 2063081 FILE CLERK	☐ 2093881 CLERK - GENERAL	☐ 2093882 CLERK - TYPIST ☐
HI PAYROLL CLERK	☐ 9228071 STOCK PERSON	☐	

CONDITION A SHELF OR SHELVES DIVIDED INTO TWENTY-SIX SECTIONS AND TWENTY SIX LABELS, LABEL INFORMATION, PEN.

PERFORMANCE LABEL EACH SECTION IN THE SHELVES ALPHABETICALLY.

EXTENT 100 PERCENT ACCURATELY SO EACH ONE WILL HAVE A DIFFERENT LETTER OF THE ALPHABET IN FRONT OF IT, 10 MIN.

IVES ARE CODED 'ATTAINABLE AS STATED' BY -(A), 'ATTAINABLE WITH MODIFICATION' BY -(M), 'UNDETERMINED BY -(-)

HEARING IMPAIRED		MENTALLY RETARDED		VISUALLY IMPAIRED		SPEECH IMPAIRED	PHYSICALLY IMPAIRED					EMOTIONALLY DISTURBED	
HD	DEAF	EMR	TMR	PT-ST	BLIND		1-LEG	1-ARM	HEMI	PARA	QUAD	MOD	SVR
A)	2-(A)	3-(A)	4-(-)	5-(A)	6-(M)	7-(A)	8-(A)	9-(A)	10-(A)	11-(A)	12-(A)	13-(A)	14-(A)

PREREQUISITE LEARNING	COMPONENT TASKS	ENVIRONMENT	CONCEPTS
ABILITY TO ALPHABETIZE	RECORD EACH LETTER OF THE ALPHABET ON 26 LABELS RECORD OTHER GIVEN INFORMATION PLACE 26 LABELS ON SHELVES IN ALPHABETICAL SEQUENCE	SHELVES DIVIDED INTO 26 SECTIONS LABELS LABEL INFORMATION PEN	CL27 FILING CL05 ALPHABETIZATION A049 ACCURACY G001 ADHESION

14.00 00 00 00 OFFICE OCCUPATIONS
14.03 00 00 00 FILING, OFFICE MACHINES, AND GENERAL OFFICE CLERICAL OCCUPATIONS
14.03 02 00 00 FILE CLERKS

COMMENT: NEW JOB OPTION ANALYSIS

DOT RELATION

2013681 LEGAL SECRETARY ☐ 2013682 MEDICAL SECRETARY ☐ 2013683 SECRETARY ☐ 2023881 STENOGRAPHER
2053681 PERSONNEL CLERK ☐ 2063881 FILE CLERK ☐ 2093881 CLERK - GENERAL ☐ 2093882 CLERK - TYPIST
2154881 PAYROLL CLERK ☐

CONDITION TWENTY-SIX MANILLA FOLDERS, ALPHABETICAL FILING INNFORMATION, LABELS.
PERFORMANCE LABEL THE MANILLA FOLDERS ALPHABETICALLY.
EXTENT 100 PERCENT ACCURATELY, SO EACH FOLDER HAS A DIFFERENT LETTER OF THE ALPHABET, 10 MIN.

OBJECTIVES ARE CODED 'ATTAINABLE AS STATED' BY -(A), 'ATTAINABLE WITH MODIFICATION' BY -(M), 'UNDETERMINED BY -(-)

HEARING IMPAIRED		MENTALLY RETARDED		VISUALLY IMPAIRED		SPEECH IMPAIRED	PHYSICALLY IMPAIRED					EMOTIONALLY DISTURBED	
HD-HG	DEAF	EMR	TMR	PT-ST	BLIND		1-LEG	1-ARM	HEMI	PARA	QUAD	MOD	SVR
1-(A)	2-(A)	3-(A)	4-(-)	5-(M)	6-(M)	7-(A)	8-(A)	9-(A)	10-(A)	11-(A)	12-(A)	13-(A)	14-(A)

PREREQUISITE LEARNING	COMPONENT TASKS	ENVIRONMENT	CONCERNS
KNOWLEDGE OF ALPHABETICAL SEQUENCE	WRITE EACH LETTER OF THE ALPHABET ON 26 LABELS RECORD OTHER FILING INFORMATION ON 26 LABELS PLACE 26 LABELS ON MANILLA FOLDERS CHECK WORK FOR ACCURACY	26 MANILA FOLDERS ALPHABETICAL FILING INFORMATION LABELS PEN	CL27 FILING CL05 ALPHABETIZATION A049 ACCURACY G001 ADHESION

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ICATION NUMBER: 413125     BATCH NUMBER: 0018
 SITIONAL PROGRAM AREA: 140302                                                        HANDICAPPED: AA A- AM A AAAAA --
 00 00 00       OFFICE OCCUPATIONS
 00 00 00       FILING, OFFICE MACHINES, AND GENERAL OFFICE CLERICAL OCCUPATIONS
 02 00 00       FILE CLERKS

ENT: NEW JOB OPTION ANALYSIS


RELATION

341 LEGAL SECRETARY          ▫ 2013682 MEDICAL SECRETARY     ▫ 2013683 SECRETARY            ▫ 2023881 STENOGRAPHER         ▫
381 FILE CLERK               ▫ 2093881 CLERK - GENERAL       ▫ 2093882 CLERK - TYPIST       ▫ 2373681 RECEPTIONIST         ▫

            CONDITION      PRE-SET UP FILE, COLORED OUTGUIDE TO BE PLACED IN SPACE WHERE ANY FOLLER IS REMOVED TO SHOW
                             IT IS MISSING, S.O.S. MANUAL.
            PERFORMANCE    MARK THE EXISTANCE AND LOCATION OF A REMOVED FOLDER WITH AN OUTGUIDE.
            EXTENT         OUTGUIDE IS PROPERLY PLACED IN FILE WITH 100 PERCENT ACCURACY ACCORDING TO PROCEDURE OUTLINED
                             IN STANDARD OFFICE SECRETARIAL MANUAL; 15 MIN.

TIVES ARE CODED 'ATTAINABLE AS STATED' BY -(A), 'ATTAINABLE WITH MODIFICATION' BY -(M), 'UNDETERMINED BY -(-)
*****************************************************************************************************************
 HEARING       *    MENTALLY        *      VISUALLY        * SPEECH  *               PHYSICALLY                     *   EMOTIONALLY    *
IMPAIRED       *    RETARDED        *      IMPAIRED        *IMPAIRED*                IMPAIRED                      *   DISTURBED      *
*****************************************************************************************************************
-HG  *  DEAF   *   EMR   *   TMR    *  PT-ST  *  BLIND   *         *  1-LEG  *  1-ARM  *  HEMI  *  PARA  *  QUAD  *   MOD   *   SVR   *
     *         *         *          *         *          *         *         *         *        *        *        *         *         *
(A)  *  2-(A)  *  3-(A)  *  4-(-)   *  5-(A)  *  6-(M)   *  7-(A)  *  8-(A)  *  9-(A)  * 10-(A) * 11-(A) * 12-(A) * 13-(-)  * 14-(-)  *
*****************************************************************************************************************

   PREREQUISITE                       COMPONENT                       ENVIRONMENT                       CONCEPTS
     LEARNING                           TASKS
*****************************************************************************************************************
 ABILITY TO READ & UNDER-  *    REMOVE FOLDER FROM FILE     *    PRE-SET UP FILE                *  CL27 FILING           *
   STAND STANDARD OFFICE   *    PLACE COLORED OUTGUIDE      *    COLORED OUTGUIDE               *  Y152 REFERENCE        *
   SECRETARIAL MANUAL      *     IN FILE WHERE FOLDER       *    FOLDERS                        *  Y151 RECORDKEEPING    *
                           *     WAS REMOVED ACCORDING      *    STANDARD OFFICE SECRETA-       *  A049 ACCURACY         *
                           *     TO PROCEDURE OUTLINED      *     RIAL MANUAL                   *                        *
                           *     IN STANDARD OFFICE SEC-    *                                   *                        *
                           *     RETARIAL MANUAL            *                                   *                        *
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                         BATCH NUMBER: 0020                         DOMAIN :        COLUMN
   IONAL PROGRAM AREA: 140302
   00 00 00      OFFICE OCCUPATIONS                                               HANDICAPPED: AA A- AM A AA-A- AA
   00 00 00      FILING, OFFICE MACHINES, AND GENERAL OFFICE CLERICAL OCCUPATIONS
   02 00 00      FILE CLERKS

ENT: NEW JOB OPTION ANALYSIS


RELATION

   SECRETARY                  □ 2093081 CLERK - GENERAL        □


             CONDITION      INSTRUCTIONS TO OBTAIN SPECIFIED FILE FOLDER FROM FILE CABINET, FILE CABINET, ESTABLISHED OFFICE
                            FILING SYSTEM.
             PERFORMANCE    OBTAIN INDICATED FILE FOLDER FROM FILE CABINET.
             EXTENT         SPECIFIED FILE FOLDER LOCATED QUICCKLY ON BASIS OF ESTABLISHED OFFICE FILING SYSTEM, NAME ON
                            FOLDER CHECKED FOR ACCURACY, FOLDER REMOVED, FROM FILE CABINET NEATLY, 100 PERCENT AS PER INSTRUCTI
                            ONS.

TIVES ARE CODED (ATTAINABLE AS STATED) BY -(A), (ATTAINABLE WITH MODIFICATION) BY -(M), (UNDETERMINED BY -(-)
*******************************************************************************************************************
HEARING        *    MENTALLY      *    VISUALLY     * SPEECH   *            PHYSICALLY                      *  EMOTIONALLY  *
IMPAIRED       *    RETARDED      *    IMPAIRED     *IMPAIRED  *            IMPAIRED                        *   DISTURBED   *
*******************************************************************************************************************
-HS  *  DEAF   *  EMR   *  TMR    *  PT-ST *  BLIND *          *  1-LEG *  1-ARM *  HEMI  *  PARA  *  QUAD  *  MOD  *  SVR  *
     *         *        *         *        *        *          *        *        *        *        *        *       *       *
(A)  *  2-(A)  *  3-(A) *  4-(-)  *  5-(A) *  6-(M) *  7-(A)   *  8-(A) *  9-(A) * 10-(-) * 11-(A) * 12-(-) * 13-(A)* 14-(A)*
*******************************************************************************************************************

  PREREQUISITE              COMPONENT                       ENVIRONMENT                        CONCEPTS
    LEARNING                  TASKS
*******************************************************************************************************************
KNOWLEDGE OF ESTABLISHED *  LOCATE SPECIFIED FILE     *  INSTRUCTIONS TO OBTAIN    * CL27 FILING                *
 OFFICE FILING SYSTEM    *   FOLDER IN FILE CABINET   *   SPECIFIED FILE FOLDER    * A049 ACCURACY              *
                         *   ACCORDING TO ESTABLISH-  *  FILE CABINET              * B083 EFFICIENCY            *
                         *   ED FILE SYSTEM           *  ESTABLISHED OFFICE FILI-  *                            *
                         *  CHECK THAT NAME ON FOLD-  *   NG SYSTEM                *                            *
                         *   ER CORRESPONDS TO INFO-  *                            *                            *
                         *   RMATION GIVEN            *                            *                            *
                         *  REMOVE FOLDER FROM FILE   *                            *                            *
                         *   CABINET                  *                            *                            *
*******************************************************************************************************************
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250

251

TASK OUTLINE

Occupation: Waiter and Waitress
USOE Cluster: Personal and Public Services

Major Responsibilities:

01. Maintains Good Customer Relations

02. Takes Orders for Food and Beverages

03. Serves Food and Beverages

04. Performs Other Serving Duties

05. Prepares Checks and Receives Payment

06. Maintains Necessary Supplies to Serve Meals

07. Performs Clean-Up Duties

08. Waits Under Specific Service Conditions

TASK OUTLINE

Occupation: Waiter and Waitress
USOE Cluster: Personal and Public Services

01. Maintains Good Customer Relations

1. Receives customers
    - greets properly
    - seats in comfortable arrangement
    - seats appropriately if wait involved
2. Observes customer needs
    - respects customer privacy
    - responds to requests for service
3. Communicates effectively with customer
    - receives complaints
    - communicates complaints to management
    - provides general information

02. Takes Orders for Food And Beverages

1. Presents menu to patrons

   -- offers suggestions
   -- answers questions regarding food
   -- records or memorizes orders

2. Presents order to cook

3. Takes beverage order

   -- obtains identification
   -- presents order to bartender

03. Serves Food and Beverages

1. Serves ice water

-- observes that busboy has properly served
-- provides water if no busboy available

2. Serves non-alcoholic beverages

-- coffee
-- tea
-- milk

3. Serves alcoholic beverages

-- receives from bartender
-- mixes drink at table
-- sets up wine cooler
-- opens bottle and pours

4. Serves food from kitchen

-- receives food from cook
-- garnishes and decorates food dishes
-- serves and removes food in sequence
-- assembles order and loads tray
-- estimates pick-up time of order
-- carves meat
-- prepares flaming dishes and salads at table

5. Prepares counterfood

-- rolls and butter
-- desserts from dessert tray
-- relish tray
-- provides seconds when requested

04. Performs Other Serving Duties

1. Wraps leftovers

2. Prepares take-out orders

   -- by phone
   -- from table

3. Prepares specially requested orders not on menu

   -- warms and fills baby bottle
   -- fills thermos bottle

Prepares Checks and Receives Payment

1. Computes checks
    - receives beverage bill from bartender
    - totals food bill
    - computes tax
    - totals both bills
    - employs adding machine
2. Presents check to customer
    - provides information about payment
    - retails check if necessary
3. Accepts payment
    - operates cash register
    - makes change
    - refers patron to cashier
    - obtains credit card
    - fills out credit slip
    - checks credit warning list
    - receives tip

06. Maintains Necessary Supplies to Serve Meals

1. Sets table

   -- changes cloth
   -- provides utensils and glassware
   -- provides condiments
   -- fills containers

2. Maintains a well-supplied station

   -- dishes, glasses and flatware
   -- maintains condiments
   -- orders linen
   -- maintains fresh coffee

3. Maintains counter supplies

   -- checks nightly on syrup level
   -- checks coffee supply
   -- other

4. Performs other duties

   -- informs manager in emergency
   -- orders supplies on a regular basis

07. Performs Clean-Up Duties

1. Cleans throughout day

   -- sweeps
   -- wipes counter
   -- maintains health and safety standards
   -- maintains attractive appearing station

2. Clears after customer departure

   -- removes dishes
   -- removes dirty linen

3. Cleans before closing

   -- empties and washes relish and dessert containers
   -- washes down supply station
   -- washes tables and counters
   -- washes coffee maker

4. Performs monthly cleaning duties

   -- washes syrup containers
   -- other parts of counter

08. Waits Under Specific Service Conditions

1. Serves at buffets

   - portions food on patron's plate
   - conducts patron to table
   - serves breads, beverages, desserts

2. Serves at banquets or parties

   - presents table
   - records orders
   - serves and removes food in sequence

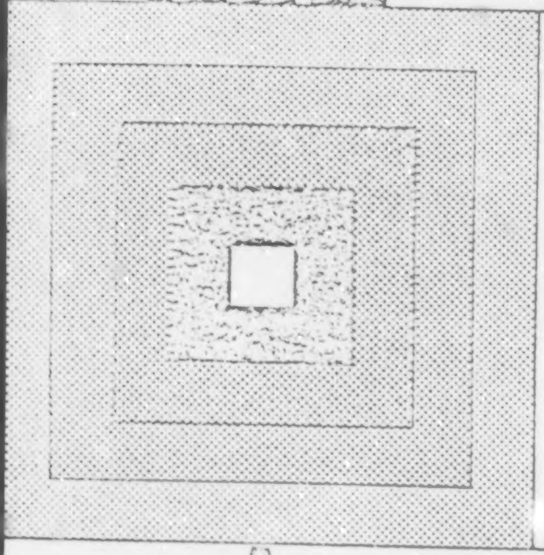
3. Provides room service in a hotel

   - receives order over phone
   - prepares rolling table with order
   - delivers to room
   - computes check

4. Provides drive-in service

   - obtains order
   - relays order to kitchen
   - serves order on tray
   - computes check

AFFIRMATIVE ACTION TO EMPLOY HANDICAPPED PEOPLE



A POCKET GUIDE

to the regulations
of the affirmative action
requirements of Section 503
of the Rehabilitation Act
of 1973

INTRODUCTION

Affirmative action.
Handicapped people.
Government contractors:

These three components add up to Section 503 of the Rehabilitation Act of 1973, a new opportunity for the United States of America in the employment of handicapped men and women.

Regulations for the program have been published by the Department of Labor.

The President's Committee on Employment of the Handicapped offers these simplified comments in the hope they will enhance understanding and acceptance of Section 503.

AFFIRMATIVE ACTION TO EMPLOY HANDICAPPED PEOPLE

A POCKET GUIDE

TOUGH FACTS

What It Is

Every employer doing business with the Federal Government under a contract for more than $2,500 must take "affirmative action" to hire handicapped people. "Affirmative acton" also applies to job assignments, promotions, training, transfers, accessibility, working conditions, termination, and the like.

Why

Over the years, American business and industry have taken big steps in hiring handicapped people. But there still are many who haven't had an equal chance to work or to get ahead on the job. The purpose of affirmative action is to encourage employers to hire more qualified handicapped people.

At the same time, it is hoped that the program might encourage more handicapped people to enter the labor force and qualify for jobs.

The Legal Basis

Section 503 of the Rehabilitation Act of 1973 established "affirmative action" for handicapped people. This law was amended a year later to broaden the definition of "the handicapped."

How Many Contractors?

About half of all the businesses of America—some 3,000,000—are covered. Among them are virtually all of the industrial leaders of the United States.

Who's Handicapped?

A handicapped person is anyone who:

(1) Has a physical or mental impairment which substantially limits one or more of his major life activities.

(2) Has a record of such an impairment.

(3) Is regarded as having such an impairment.

Some Explanations of the Definitions

"Substantially Limits . . ."

> This has to do with the degree to which the disability affects employability. A handicapped worker having a hard time getting a job or getting ahead on the job because of a disability would be considered "substantially limited."

"Major Life Activities..."

> These include communication, ambulation, self-care, socialization, education, vocational training, transportation, housing and, of course, employment. The main emphasis is on those life activities that affect employment.

Some Examples:

(1) A blind person or a paraplegic person would have "an impairment substantially limiting one or more of his major life's activities." So would a mentally retarded person.

(2) A person who had been in a mental hospital and had been rehabilitated would have "a record of such impairment," even though he now is mentally sound. So would a person with a history of heart condition or cancer.

(3) A person who people *think* is handicapped—for example, a person who might seem mentally retarded but isn't—would be regarded as "having such an impairment."

Is Every Handicapped Person Covered?

No. There's another crucial word: "qualified." A person must be capable of performing a particular job—with reasonable accommodation to his handicap.

How Many Handicapped People?

The employable handicapped population of America, between the ages of 16 and 64, numbers nearly 12,000,000, according to the Census.

A lower proportion of the handicapped are in the labor force than the non-handicapped. Hopefully, "affirmative action" will bring more handicapped people into America's labor market.

What Government Contracts Are Included?

Contracts over $2,500 for supplies or services or for the use of real or personal property, including construction. Subcontracts also are included.

> "Services" include such things as utility, construction, transportation, research, insurance, others.
>
> "Construction" means not only the erection of buildings but their repair, alteration, extension, demolition. Highways are not included.

Federal grants and federally assisted contracts are not included in Section 503. They are covered by a separate provision, Section 504, of the same Rehabilitation Act of 1973.

Affirmative Action Clauses

Every Federal contractor must include an affirmative action clause in each of its contracts or subcontracts. The clause must cover these points:

(1) The contractor agrees not to discriminate against any handicapped person who is qualified to perform the job; and also agrees to take affirmative action to hire, advance and treat handicapped people without discrimination;

(2) The contractor agrees to abide by all Department of Labor rules and regulations;

(3) In the event of noncompliance, the contractor will be declared in default;

(4) The contractor agrees to post notices of affirmative action in conspicuous places around the plant;

(5) The contractor agrees to notify all union or worker representatives that he is covered by the affirmative action law;

(6) The contractor includes the affirmative action clause in all subcontracts or purchase orders of more than $2,500.

For Larger Contractors:

Each Government contractor holding a contract or subcontract of $50,000 or more and having at least 50 employees is required to develop and maintain an affirmative action program which sets forth his policies and practices regarding handicapped employees.

This program may be kept separate from other affirmative action programs. Or it may be integrated into the other programs, but if this is done, it must be identifiable and retrievable.

The program must be reviewed and updated each year. Explanations of major changes must be readily available to employees and to applicants for jobs.

IDENTIFICATION

To Identify Or Not To Identify

All handicapped job applicants and employees who want to be covered by affirmative action will be asked to identify themselves to the contractors.

They'll be told:

(1) The information is to be given voluntarily;

(2) It will be kept confidential;

(3) Refusal to give it will not subject the person to any kind of adverse treatment.

The Notice

Job applicants will be given this kind of notice:

> "If you have a handicap and would like to be considered under the affirmative action program, please tell us. This information is voluntary . . . It will be kept confidential, except that (1) supervisors and managers may be informed regarding work restrictions or accommodations, and (2) first aid people will be informed regarding possible emergency treatment."

The notice goes on to ask the handicapped person about any special skills or methods worked out to assist in performing the job satisfactorily, as well as any special adaptations needed because of the handicap.

To be covered or not to be covered: it's up to the handicapped person. It's the individual's choice whether to use the designation of a handicap in seeking employment or advancement in employment.

AFFIRMATIVE ACTION: WHAT IT CONSISTS OF

So far we've shown who is covered by affirmative action programs and how handicapped people can make use of the program. So that affirmative action might succeed, the Department of Labor has outlined what an affirmative action program should consist of, and what steps a contractor should take to carry out a program. We'll deal with these matters next.

General

Affirmative action covers all levels of employment, including executive. It also covers all kinds of employment practices such as: hiring, upgrading, transfer, demotion, recruitment, layoff, termination.

Physical and Mental Qualifications

Contractors must look over any physical or mental requirements for jobs to see whether they screen out handicapped people. If by chance they do, they must be clearly job-related and consistent with business necessity and safe performance.

Whenever a contractor looks into a person's physical or mental condition, before hiring or before a change in job status, the query must be based only on the requirements of the job. And the information may be used only for purposes of proper job placement.

The information that a contractor gets must be used only for purposes of affirmative action and proper placement. Also, the information must be kept confidential except that:

> Supervisors and managers may be told about work restrictions and necessary accommodations;

First aid people may be told if the person's handicapping condition may require emergency treatment.

A contractor may conduct a comprehensive medical exam before hiring, but the results can't be used to exclude or limit opportunities of handicapped people.

Accommodation

A contractor must make "reasonable accommodation" to the physical and mental limitations of handicapped employees or job applicants, unless the contractor can show that the accommodations would create an undue hardship on the business.

Pay

Handicapped people may not have their pay reduced because of any outside disability pension or compensation or payments they may be getting from another source.

Outreach

A contractor must review his or her employment practices to see whether they provide for affirmative action. Based on the findings, outreach efforts such as the following must be made. Not all these are required; just those that are appropriate and effective for an individual business.

(1) Building acceptance of handicapped people by managers, supervisors and all employees through internal communcations;

(2) Use of personnel machinery to make sure affirmative action is followed;

(3) Use of all recruiting sources, such as state employment services, vocational rehabilitation, sheltered workshops, college placement officers, state education agencies, labor organizations, organizations of and for handicapped people;

(4) Recruitment at schools for handicapped students—blind, deaf, mentally handicapped, physically handicapped,

(5) Getting advice on placements, recruitment, training and accommodations from vocational rehabilitation, voluntary health organizations, handicapped groups, others;

(6) Reviewing employment records of handicapped people to find out whether their full abilities are being used;

(7) Trying to attract qualified handicapped people from outside the labor force, through organizations to which they belong.

Spreading the word

To gain full support of affirmative action within the company, it should be publicized: In the policy manual; in company publications; by special meetings for executives, managers and supervisors; in employee orientation programs; in meetings with unions; in nondiscrimination clauses in union contracts; on company bulletin boards.

Executive Responsibility

An executive of the company should be appointed director of affirmative action activities, and should have top management support. The director's duties should include developing policy statements, affirmative action programs and communications activities; identify problem areas and developing solutions; arranging for audit and reporting systems; serving as liaison between the contractor and enforcement agencies and organizations of and for handicapped people; keeping management informed of developments in affirmative action; and arranging for career counseling of handicapped employees.

Carrying Out the Program

To make certain that the greatest possible number of people benefit from affirmative action, the contractor should do things such as:

(1) Look over the employee selection process to be sure handicapped people aren't considered only for certain sterotyped kinds of jobs;

(2) Hold briefing sessions for recruiting sources, letting them know about company policies, future job openings and the like;

(3) Carefully select personnel people to assure that they will implement affirmative action;

(4) Include handicapped people in the personnel department;

(5) Take part in career days, work-study programs, and other efforts that reach out into the community, as well as other activities that include handicapped people.

Sheltered Workshops

Contracts with sheltered workshops alone do not make an affirmative action program. But they can be part of affirmative action if the workshops train handicapped workers who will be taken on by the company after they complete their training.

ABOUT COMPLAINTS

The Procedure

What recourse does a handicapped person have in the event of possible discrimination? With the complaint, this person must submit a signed statement specifying his or her handicap. If further medical documentation is needed, the person may be asked to provide it, or to undergo a physical exam at company expense.

Medical documentation must be based on the American Medical Association Guides to the Evaluation of Permanent Impairment, but the Guides are to be used only to determine the existence of a handicap and not its severity.

(1) The person, or someone authorized as a representative, files a written complaint with the Office of Federal Contract Compliance of the Department of Labor.

(2) If the company has an internal review procedure, the complaint goes there first.

(3) If the company does not have an internal review procedure, the Department of Labor steps in for a prompt investigation.

(4) If the Department of Labor investigation shows no violation, the handicapped person can ask for a review of the case.

(5) If the investigation does show a violation, efforts will be made to encourage the contractor to comply, and to state in writing that he or she will take corrective action.

(6) If this doesn't work, the contractor will be given an opportunity for a hearing of the case.

(7) If the decision goes against the contractor, it's possible for sanctions or penalties to be

imposed by the Department of Labor. The Government contract could be terminated.

SUMMARY

Affirmative action is a positive program. It basically isn't a punitive program. Its purpose is to encourage employers to hire more qualified handicapped people. An unstated secondary purpose is to encourage more handicapped people to enter the labor market and qualify for jobs.

Punitive provisions most likely will have to be used only seldom. Most employers will want qualified people; they'll welcome the addition of men and women who happen to be handicapped.

NOTES

These are not official regulations. They are highlights of regulation issued by the Employment Standards Administration of the U.S. Department of Labor. They've been prepared by the President Committee on Employment of the Handicapped as an aid to understanding the regulations.

For a copy of the official regulations, please write to the Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210.

Publications similar to this will be issued by the President's Committee, covering the nondiscrimination program of Section 504 of the Rehabilitation Act of 1973, and the affirmative action program for veterans, who get special consideration under Section 402 of the Vietnam-Era Veterans Readjustment Assistance Act of 1974 (Public Law 93-508).

The President's Committee
on Employment of the Handicapped, Washington, D.C.
20210

APPENDIX D

Examples of Development of Composite Job Descriptions

TASK OUTLINE

Counter person

Occupation: Waiter and Waitress

USOE Cluster: Personal and Public Services

Major Responsibilities:

01. Maintains Good Customer Relations

02. Takes Orders for Food and Beverages

03. Serves Food and Beverages

04. Performs Other Serving Duties

05. Prepares Checks and Receives Payment

06. Maintains Necessary Supplies to Serve Meals

07. Performs Clean-Up Duties in service area

08. Waits Under Specific Service Conditions
Rush hours

TASK OUTLINE

Occupation: ~~Waiter and Waitress~~ counter person
~~USOE Cluster: Personal and Public Services~~

01. Maintains Good Customer Relations

1. Receives customers

-- greets properly
-- ~~seats in comfortable arrangement~~
-- ~~serves appropriately if wait involved~~

2. Observes customer needs

-- ~~respects customer privacy~~
-- responds to requests for service

3. Communicates effectively with customer

-- receives complaints and directs them to shift manager
-- communicates complaints to management
-- provides general information

0/1

02. Takes Orders for Food And Beverages

~~1. Presents menu to patrons~~

- -- offers suggestions
- -- answers questions regarding food
- -- records or memorizes orders on occasion

~~2. Presents order to cook~~

1. 3. Takes beverage order

- -- ~~obtains identification~~
- -- ~~presents order to bartender~~

03. Serves Food and Beverages

~~1. Serves ice water~~

-- ~~observes that busboy has properly served~~
-- ~~provides water if no busboy available~~

1. Serves non-alcoholic beverages

-- ✓ coffee
-- ✓ tea
-- ✓ milk
-- ✓ Soft Drinks

~~3. Serves alcoholic beverages~~

-- ~~receives from bartender~~
-- ~~mixes drink at table~~
-- ~~sets up wine cooler~~
-- ~~opens bottle and pours~~

2. Serves food from kitchen

-- ✓ receives food from ~~cook~~ Transfer bin
-- ~~garnishes and decorates food dishes~~ Checks Food Quality
-- ✓ serves and removes food in sequence
-- ✓ assembles order and loads tray
-- ~~estimates pick-up time of order~~
-- ~~carves meat~~
-- ~~prepares flaming dishes and salads at table~~

3. Prepares counterfood

-- ~~rolls and butter~~
-- ✓ Stocks ~~desserts from~~ dessert ~~tray~~ TRAY
-- ~~relish tray~~
-- ~~provides seconds when requested~~

Draws Carbonated Beverages & Shakes
Packages Fries

-/3

04. Performs Other Serving Duties (cleaning)

1. ~~Wraps leftovers~~
① Disguards Food Exceeding holding times or not meeting quality standard

8. 2. Prepares take-out orders

- ~~by phone~~
- ~~from table~~

9. 3. Prepares specially requested orders not on menu

- ✓ warms and fills baby bottle
- ✓ fills thermos bottles on occasion

05. Prepares Checks and Receives Payment

10. * 1. Computes checks

-- ~~receives beverage bill from bartender~~
-- ✓ totals food bill
-- ✓ computes tax
-- ✓ totals ~~both~~ bills
-- ✓ employs adding machine on Register

11. * 2. Presents check to customer

-- ✓ provides information about payment
-- ~~initials check if necessary~~

12. * 3. Accepts payment

-- ✓ operates cash register
-- ✓ makes change
-- ~~refers patron to cashier~~
-- ~~obtains credit card~~
-- ~~fills out credit slip~~
-- ~~checks credit warning list~~
-- ~~receives tip~~

06. Maintains Necessary Supplies to Serve Meals

13 1. Sets table

-- ~~changes cloth~~
-- ✓ provides utensils and glassware at counter
-- ✓ provides condiments
-- ✓ fills containers

14 2. Maintains a well-supplied station

-- ~~dishes, glasses and flatware~~
-- ✓ maintains condiments
-- ~~orders linen~~
-- ✓ maintains fresh coffee

15 3. Maintains counter supplies

-- ~~checks nightly on syrup~~ level
-- ~~checks coffee su~~pply
-- ~~other~~

14, 4. Performs other duties

-- ✓ informs manager in emergency
-- ~~orders supplies on a regular basis~~

07. Performs Clean-Up Duties

17 1. Cleans throughout day *upon request*

-✓ sweeps
-✓ wipes counter
-✓ maintains health and safety standards
-✓ maintains attractive appearing station

18 2. Clears after customer departure

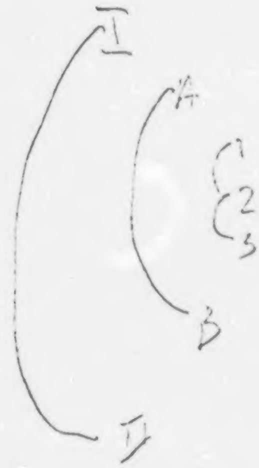
-- ~~removes dishes~~
-- ~~removes dirty linen~~

19 3. Cleans before closing

-- ~~empties and washes relish and dessert containers~~
-✓ washes down supply station
-✓ washes tables and counters
-✓ washes coffee maker

20 4. Performs monthly cleaning duties

-- ~~washes syrup containers~~
-- ~~other parts of counter~~



08. Waits Under Specific Service Conditions

1. ~~Serves at buffets~~

   - -- portions food on patron's plate
   - -- conducts patron to table
   - -- serves breads, beverages, desserts

2. Serves at ~~banquets or~~ parties

   - -- presents table
   - -- records orders
   - -- serves and removes food in sequence

~~[illegible]~~ – Tour of Store

~~[illegible]~~

~~[illegible]~~

– Set up

– Serves Birthday Cake

~~3. Provides room service in a hotel~~

   - -- receives order over phone
   - -- prepares rolling table with order
   - -- delivers to room
   - -- computes check

~~4. Provides drive-in service~~

   - ✓ -- obtains order
   - -- ~~relays order to kitchen~~
   - ✓ -- serves order on tray
   - ✓ -- computes check

Marketing and Distribution
Retail Department Store Subcluster
Marshall's

Ticketer

1. Wrap materials
   - A. So as not to damage merchandise
   - B. Ready for display by department
2. All merchandise ticketed on right hand corner using Kimball ticket
3. Ticketing done uniformly
4. Check purchase order for pricing
5. Place ticketed material in appropriate area

Derived
from Jayne's

Marketing and Distribution
Retail Department Store Subcluster
Marshall's

Ticketer

1. Wrap materials 2
   - A. So as not to damage merchandise
   - B. Ready for display by department
2. All merchandise ticketed on right hand corner using Kimball ticket
3. Ticketing done uniformly 2
4. Check purchase order for pricing 2,4,1
5. Place ticketed material in appropriate area 2

APPENDIX E

Examples of Coded Job Options

Marketing and Distribution
Food Subcluster
Burger King

Kitchen Worker 3

Duties and Responsibilities

1. Receives segment of total order - by listening 2,1,1
2. Prepares segment of order - drinks, sandwiches, french fries, etc. 2,2,1
3. Dispenses order to front
4. Cleans up 1

Duties and Responsibilities

01 Makes Room Occupancy Check in Morning and Again in Afternoon

1. Pick up section housekeeper's report (in duplicate) and key to assigned section after clocking in 1
2. Proceed to floor, remove cart 1,2
3. Approach room and observe doorgram 1,2
4. Open drapes wide for maximum amount of light; open transom or window to air room 1
5. Take a look around at the condition of the room, checking for missing or damaged items, such as linens, wastebaskets, or even TV's. 1,2,2,1,1
6. After the first inspection, start picking up any newspapers, periodicals, etc., and fold neatly 1,2
7. Immediately report any damage you see to the senior housekeeper 1,1
8. At 3:45 P.M. an afternoon room check must be taken 1,2,1
9. Do any "tidies" you find once your room check is completed 1

02 Does Complete Cleaning of Guest Rooms (Approximately 15 Daily); Strips and Makes up Beds with Clean Linen Daily; Cleans Bathroom; Vacuums Carpet; Dusts and Polishes Furniture

1. When bowl cleaner is used, this should be put in the toilet at this time 1,2,1
2. Strip the linen from the beds 1
3. Empty the ashtrays in the wastebasket 1
4. Collect soft drink bottles or cans and soiled glasses on the tray with the ice bucket 1
5. Strip the bath linen 1

6.	Clean bathroom	1
7.	Wipe down the tile	1
8.	Wipe the shower curtain rod	1
9.	Check to be sure all shower curtain hooks are in place	1
10.	Spread the shower curtain and wipe down both sides of curtain	1
11.	Scrub the tub thoroughly and remove the drain	1
12.	Clean and polish the shower fixture	1
13.	Clean the toilet lid and seat on both sides	1
14.	Wipe all towel racks and hooks clean and dry	1
15.	Polish the light switch and wash off any fingerprints	1
16.	Dust the top, inside and outside of the bathroom door	1
17.	Clean bathroom vent in ceiling	1,2
18.	Wash and polish the shower fixture	1
19.	Pull the sink stopper and clean it thoroughly	1
20.	Wash and dry the vanity shelf	1
21.	Clean and polish chrome plumbing fixtures under the sink	1,1
22.	Make up the beds	1
23.	Dust shelf in closet	1
24.	Remove any wire or wooden hangers not belonging to the Marriott	1
25.	Dust TV using the covered stick to dust underneath	1
26.	Clean the inside of drawers	1
27.	Damp wipe and dust the vinyl headboard	1

28.	Dust the telephone and cord	1
29.	Wash the telephone mouthpiece	1
30.	Dust the nightstand, dust the phone book and replace it on the shelf	1
31.	Sweep all around the edges of the room carpet	1
32.	Dust lamp on the desk, including shade	1
33.	Dust chairs and tables	1
34.	Vacuum the room	1
35.	Adjust thermostat per instructions on the bulletin board	1,2,2,1,1
36.	Close the transom	1
37.	Wipe off entrance threshold	1
03	Turns in Lost and Found Articles to Linen Room	
1.	In all clear out and ready rooms, open the drawers so you can see clear back into the drawer	1
04	Makes up Cots When They Have Been Used in Assigned Rooms	
1.	Make up cots in rooms with clean linen	1,2
05	Other Duties as Required According to Established Procedures	
1.	Report to work using EMPLOYEES ENTRANCE ONLY	1
2.	Clock in in uniform at 8:00 A.M.	1
3.	Return to the Main Linen Room and check schedule you are working the next day	1,2,1
4.	Check out in uniform at 4:30 P.M.	1

Marketing and Distribution
Food Subcluster
McDonald's

Counter Person 2

Duties and Responsibilities

01 Maintains Good Customer Relations

1. Receives customers

3

2. Observes customer needs

3. Communicates effectively with customer

02 Takes Orders for Food and Beverages

1. Takes beverage order

03 Serves Food and Beverages

1. Serves non-alcoholic beverages

2. Serves food from kitchen

3,3

3. Prepares counterfood

3

04 Performs Other Serving Duties

1. Prepares take-out orders

3

2. Prepares specially requested orders not on menu

3

05 Maintains Necessary Supplies to Serve Meals

1. Sets table

3,3,3,3

2. Maintains a well-supplied station

3,3,3,3

3. Maintains counter supplies

3,3,3,3

06 Performs Clean-Up Duties in Service Area

1. Cleans throughout day upon request

3,3,3,3,3

2.	Clears after customer departure	3,3,3,3,3
3.	Cleans before closing	3,3,3,3
4.	Performs monthly cleaning duties	3,3,3
07	Waits on Customers Under Rush Hour Conditions	
1.	Performs other duties as required	?,?,?

Duties and Responsibilities

01 Prepares Window Display Space and Materials for Display Installation

1. Removes merchandise from previous display from window display area 3,3,3
2. Removes mannequins, forms, fixtures and props from window display area 3,3,3
3. Performs general cleaning duties in emptied window display area 3,3,3
4. Obtains merchandise to be displayed from stockroom or indicated departments 3,3

02 Prepares Display Space and Materials for Display Installation

1. Arranges garments or other merchandise on forms, mannequins and fixtures
2. Inspects assembled display materials for proper operation and condition 1,1,1
3. Prepares show cards for use in window display 1,1,1

APPENDIX F

Excerpts from Coordinator's Hand Book

Institute for Career Research
1399 Washington Street
Hanover, MA 02339
617-826-8361

THE CAREER ACCESSIBILITY MODEL

PLACEMENT COORDINATORS' RESOURCE BOOK

INTRODUCTION

Contained in the following pages is a compilation of data relative to occupational and career opportunities for the educable mentally retarded. The information is intended for use by placement coordinators, teachers, guidance counselors, parents, employers and administrators in the career development, vocational preparation, placement and follow-up of mentally handicapped high school students.

Derived by the Institute for Career Research during the first phase of a two-year federal grant out of the Bureau for Education of the Handicapped, this data base will serve to fuel the Career Access Model which will be tested by ICR in four Massachusetts and three New Jersey school districts in 1977-1978.

The career information purposely has been placed in a ring notebook in order to facilitate continuous revisions and additions as the CAM program progresses. It is ICR's hope that in the subsequent year each school district will adapt the data to its own student and community needs, thereby augmenting the present data base information related to their specific settings.

COMPANY CONTACTS

Randy Smith
Brigham's

Arthur Veves
Burger King

Ramsey Torruella
Marriott

Neil Falby
Marshall's

Clinton McCann
McDonald's

Ron Partridge
S. D. Warren

Tony Dinardo
Stop and Shop

Edward Cooney
Stop and Shop

Houston Ingram
Texaco

Pat Martin
Woolworth's

Steve Sonis
Zayre's

John Sullivan
Zayre's (Hanover)

SUMMARY OF NEW JOB OPTIONS AND SPECIFIC TASK OUTLINES*

BRIGHAM'S

New Job Options

Utility/Kitchen Worker*
Waiter/Waitress**

Company Specific Task Outlines

Assistant Store Manager
Store Manager
Waiter/Waitress

BURGER KING

New Job Options

Kitchen Worker*
Set-Up Person**
Waiter/Waitress***

Specific Task Outlines

Waiter/Waitress

MARRIOTT

New Job Options

Housekeeper*
Laundry Room Attendant*
Sales Clerk Assistant*****
Security Guard****
Station Attendant/Salad Tender**
Storekeeper***
Utility/Dining Room Attendant/Bus Boy**
Utility/Dishwasher*
Utility/Kitchen Helper*

*Asterisk indicates that Specific Task Outline is the same as New Job Option, i.e. 100% fit.

Specific Task Outlines

General Salesperson
Hotel/Motel Clerk
Meat Clerk
Nursery Person
Pastry Chef
Recreation Aide
Security Guard*
Station Attendant/Salad Tender*
Utility/Dining Room Attendant/Bus Boy*
Utility/Dishwasher*
Utility/Kitchen Helper*
Waiter/Waitress

MARSHALL'S

New Job Options

Mail Room Clerk
Sales Clerk
Stockperson
Ticketer
Ticket Maker

Specific Task Outlines

Cashier
Service Desk Clerk

McDONALD'S

New Job Options

Counter Person
Utility/Maintenance

Specific Task Outlines

Waiter/Waitress

STOP AND SHOP

New Job Options

Bagger/Bundler
Deli Assistant
General Clerk
Meat Clerk

Specific Task Outlines

Buyer
Meat Clerk
Night Store Manager
Stockperson

TEXACO

New Job Options

Service Station Attendant

Specific Task Outlines

Service Station Attendant

S. D. WARREN

New Job Options

Mail Room Attendant
Office Aide

Specific Task Outlines

None

WOOLWORTH'S

New Job Options

Assistant Window Trimmer
Sales Clerk
Stockperson
Utility Person

Specific Task Outlines

Assistant Merchandise Supervisor
Assistant Buyer
Buyer
Display Person
Sales Clerk
Stockperson
Window Trimmer

ZAYRE'S

New Job Options

* * Customer Service Desk Attendant
* * Fitting Room Clerk
* * Sales Clerk
Stockperson *
Ticketer *
* * Waiter/Waitress

Specific Task Outlines

Assistant Store Manager
Assistant Buyer
Buyer
Customer Service Specialist
Sales Clerk
Waiter/Waitress

NEW JOB OPTION

Burger King
Restaurant/Fast Food

KITCHEN WORKER

General →	Specific →	NJO →	Fit
Dictated by Employer Unique to Burger King →	Kitchen Worker →	Kitchen Worker →	Excellent

Duties and Responsibilities

1. Receives segment of total order - by listening
2. Prepares segment of order - drinks, sandwiches, french fries, etc.
3. Dispenses order to front
4. Cleans up

Marketing and Distribution
Food Subcluster
Burger King

Kitchen Worker 3

Duties and Responsibilities

1.	Receives segment of total order - by listening	2,1,1
2.	Prepares segment of order - drinks, sandwiches, french fries, etc.	2,2,1
3.	Dispenses order to front	1
4.	Cleans up	

CAREER ACCESSIBILITY MODEL
Task Force/Parent Anecdotal Comments

New Job Option Title Kitchen Worker

Company Burger King

Job Performance:

1. Dialect and technical vocabulary may present problems in job performance.

Instruction:

General Employability Skills:

Parents' Views:

SPECIFIC
TASK OUTLINE
Burger King

Occupation: Counter Person

Major Responsibilities

01. Maintains Good Customer Relations

02. Takes Orders for Food and Beverages

03. Serves Food and Beverages

04. Performs Other Serving Duties

05. Prepares Checks and Receives Payment

06. Maintains Necessary Supplies to Serve Meals

07. Performs Clean-Up Duties

08. Waits Under Specific Service Conditions

SPECIFIC
TASK OUTLINE
Burger King

Occupation: Counter Person

01. Maintains Good Customer Relations

1. Receives customers

   -- greets properly
   -- asks if order is to stay or go

2. Observes customer needs

   -- respects customer privacy
   -- responds to requests for service

3. Communicates effectively with customer

   -- receives complaints
   -- communicates complaints to management
   -- provides general information

02. Takes Orders for Food and Beverages

1. Answers questions regarding food

2. Records or memorizes orders

3. Calls in orders

4. Estimates time of order

03. Serves Food and Beverages

1. Serves non-alcoholic beverages

   -- coffee
   -- tea
   -- milk

2. Receives food from cook

   -- assembles order and loads tray

3. Serves food to customer

04. Performs Other Serving Duties

1. Prepares take-out orders

-- from counter

05. Prepares Checks and Receives Payment

1. Computes checks

-- totals food bill
-- computes tax
-- totals both bills
-- employs adding machine

2. Presents check to customer

-- provides information about payment
-- retotals check if necessary

3. Accepts payment

-- operates cash register
-- makes change

06. Maintains Necessary Supplies to Serve Meals

1. Maintains a well-supplied station

-- maintains condiments

2. Maintains counter supplies

-- checks coffee supply
-- other

3. Performs other duties

-- informs manager in emergency

07. Performs Clean-Up Duties

1. Cleans throughout day

-- sweeps
-- wipes counter
-- maintains health and safety standards
-- maintains attractive appearing station

2. Clears after customer departure

3. Cleans before closing

   -- empties and washes relish and dessert containers
   -- washes down supply station
   -- washes tables and counters
   -- washes coffee maker

4. Performs monthly cleaning duties as scheduled

08. Waits Under Specific Service Conditions - in Some Restaurants

1. Provides drive-in service

   -- obtains order
   -- relays order to kitchen
   -- serves order on tray
   -- computes check

NEW JOB OPTION

Zayre's
Retail/Discount Department Store

CUSTOMER SERVICE DESK ATTENDANT

General →	Specific →	NJO →	Fit
Customer Service Specialist →	Customer Service Specialist →	Customer Service Desk Attendant →	Good

Marketing and Distribution
Retail Department Store Subcluster
Zayre

Customer Service Desk
Attendant

Duties and Responsibilities

01	Maintains an Information Service Desk	
1.	Gives directions/information to customers	2,2,2
2.	Answers telephone (at service desk)	2
3.	Supervises store telephone switchboard	
02	Performs Store Services for Customers	
1.	Handles refunds, exchanges and customer complaints	2,1
2.	Handles layaways	2
3.	Provides a package checking service for customers	3,2,3
03	Carries Out Miscellaneous Clerical Duties	
1.	Performs clerical duties and types	2
2.	Performs accounting functions	
3.	Provides assistance to cashiers on floor	
4.	Performs mailing functions	2,2

CAREER ACCESSIBILITY MODEL
Task Force/Parent Anecdotal Comments

New Job Option Title Customer Service Desk Attendant

Company Zayre

Job Performance:

1. Judgements require strict procedures on the job.

Instruction:

1. Math ability required on the job should be determined.

General Employability Skills:

1. Stress factors during "peak" hours require instructional preparation.

Parents' Views:

1. "May be too high functioning."

Marketing and Distribution
Retail Department Store Subcluster
Zayre

Customer Service Desk
Attendant

Duties and Responsibilities

01 Maintains an Information Service Desk

1. Gives directions/information to customers
2. Answers telephone (at service desk)
3. Supervises store telephone switchboard

02 Performs Store Services for Customers

1. Handles refunds, exchanges and customer complaints
2. Handles layaways
3. Provides a package checking service for customers

03 Carries Out Miscellaneous Clerical Duties

1. Performs clerical duties and types
2. Performs accounting functions
3. Provides assistance to cashiers on floor
4. Performs mailing functions

NEW JOB OPTION

Zayre's
Retail/Discount Department Store

FITTING ROOM CLERK

General → Specific → NJO → Fit

Dictated by Employer Unique to Company → Fitting Room Clerk → Fitting Room Clerk → Excellent

Duties and Responsibilities

1. Operates switchboard 1,1,1,1,3
    - A. In-coming calls
    - B. Runs paging system
2. Rehangs merchandise for floor
3. Controls traffic flow into fitting rooms
4. Monitors merchandise taken in and out of fitting room

CAREER ACCESSIBILITY MODEL
Task Force/Parent Anecdotal Comments

New Job Option Title Fitting Room Clerk

Company Zayre

Job Performance:

Instruction:

General Employability Skills:

Parents' Views:

1. "Quick and accurate judgement required, questionable."
2. "High level of language and social skills required."
3. "Too difficult."

Marketing and Distribution
Retail Department Store Subcluster
Zayre

Fitting Room Clerk

Duties and Responsibilities

1. Operates switchboard
    - A. In-coming calls
    - B. Runs paging system
2. Rehangs merchandise for floor
3. Controls traffic flow into fitting rooms
4. Monitors merchandise taken in and out of fitting room

APPENDIX G

National Advisory Committee Activities - Excerpt from CAM Interim Report, November, 1977

E. National Advisory Committee Activities

1. Advisory Committees: The first annual meeting of the CAM Project's National Advisory Committee was held at the CEC Convention in Atlanta in April. The committee is made up of persons from various parts of the country who have recognized expertise in career education for the handicapped. The following members serve on the committee:

Mr. Mel Appel
Dr. Gary Bice
Dr. Steve A. Brannan
Dr. Donn Brolin
Dr. Pat Cegalka
Dr. Henry Colella
Dr. David Compton
Mr. John Gleason
Dr. Norman Gysbers
Mr. William P. Hoey
Dr. Marc Hull
Dr. Oliver P. Kolstoe
Dr. Betty Ross-Thomson
Dr. Robert Stodden
Dr. Dennis Vinton

The meeting included an in-depth analysis of the project purposes and activities and provided a forum for many timely inputs from the group. A complete set of information on the meeting appears in Appendix B.

The following is a summary of the comments and questions provided by the advisory committee at the meeting and in the issues and problems questionnaire which they returned to the staff later in the spring.

Advisory Committee Comments/Questions

On Implementation Plan Presented in Atlanta: At the April meeting, the committee was asked to comment on a flow chart showing a tentative implementation plan for the Career Access Model. The following is a summary of the discussion and key questions posed by the committee. As indicated by the brief comments following the questions, these points have already helped guide project staff in preparing teachers and coordinators at the school sites.

Job Generation: Discussion on this part of the model was concerned with detailing specific criteria relative to roles and processes as well as the need to interrelate all activities. Typical questions were:

1. How do you integrate job generation activities with other activities?
2. What criteria will be used to evaluate school and community needs?
3. What criteria will be used to identify students who will participate in the program?
4. Who will do the evaluating?
5. What specific strategies will be used by the schools to generate new options?

Three goals of the late summer workshop (see Section II of report) were to clarify roles of participants, to initiate team development processes, and to conduct a thorough assessment of student needs in respect to school districts.

Instruction: Discussion on this phase of the model emphasized a comprehensive view of the learning environment as well as the individual needs of students. Typical questions were:

1. Is there a student vocational assessment?
2. Is there adequate equipment, materials, etc.?
3. Are student interests, maturity levels and motivation taken into account in planning and reflected in the curriculum?
4. Is there an alternative program for students who don't get placed?
5. Are instructors oriented to employer expectations?
6. Are alternate preparation strategies available?
7. Are skills well defined?
8. Can work environment (modifications, etc.) be reflected in the curriculum?

The summer workshop stressed the need for interdisciplinary instructional planning in relation to the student assessments; alternate assessments were discussed and detailed action plans developed by school teams. Administrative constraints, adequate equipment resources and alternate teaching strategies were considered. Phase I data was clearly delineated and provided along with access to ICR's data bank of performance objectives relative to particular job responsibilities.

On Placement: The committee discussed, at length, questions relating to employer attitudes, career development and follow-up procedures. A sample of questions is as follows:

1. Are other employees prepared for the placement?
2. Are career ladders delineated?
3. Are job responsibilities determined and fully stated?
4. Will skills and abilities of program graduates be assessed when placed in full-time jobs?

Much time has been spent preparing coordinators for their roles. At a one day conference in June and again at the Writers' Conference in late August, follow-up and evaluation techniques were discussed. One early goal of Phase II is to delineate, as clearly as possible, how and when follow-up assessments will be made and what data must be collected.

On Research in General: Several interesting and often profound research questions were raised at the conference and in later correspondence. Each of them has been weighed carefully against the overall CAM project mission and has helped project staff in keeping an adequate perspective on its work. For example:

1. Are the 12 variables used in the General Employability Questionnaire an explanation of causality or correlation in regard to job adjustment?
2. How should the overall model be evaluated in the schools?
3. What are the cost/effective dimensions of the CAM?
4. How should employment success be evaluated?
5. What criteria should be used to select companies?

In sum, the committee seemed to feel, as one participant expressed it, that overall, ICR has "a favorable plan, which will require close scrutiny, a lot of definition and heavy documentation."

Issues and Problems Questionnaire

Responses to the ten questions posed in the questionnaire given to committee members are summarized below:

1. What is the state of educator readiness relative to implementing this model?

The overall feeling was that because educators are under pressure to act on special needs problems, they would be, and are, prepared to initiate the model. Because a working partnership between education and business has not been developed in most parts of the country, schools will be faced with the problem of training personnel to coordinate CAM activities and provide the general leadership necessary to maintain the involvement of private industry. Present budgetary problems for some districts were identified as a possible drawback to immediate participation.

2. Are there teacher instructional material formats which are more useful than others?

Although not many are available, programs with a behavioral format, e.g. Project Price were stressed. On the job training, versus simulation exercises, was seen as a realistic approach.

3. Should the implementation be more adoptive or adaptive in nature?

The committee felt strongly that much flexibility should be included in implementing the CAM in order to allow schools to adapt the program to their own needs.

4. Where does this model fit in the school curriculum?

The CAM was viewed to be as appropriate as an extension of most secondary level programs for the mentally retarded. However, emphasis was placed on the implications of the CAM on career exploration wherever it may occur, including the junior high level. The committee also felt the CAM could be generalized to other handicapped populations, e.g. learning disabled.

5. Who are the principal actors in the process?

The following individuals were identified as key people in the implementation of the CAM:

Teachers of the handicapped

Co-op or work study coordinators

Guidance counselors

Parents

Career education coordinators

6. Given our project plan, is there a need to generate new curriculum?

Responses to this question were divided. Those who answered "no" emphasized the need for local school people to assemble curricula which is relevant to their needs and interrelated with existent curricula. Those answering "yes" felt that the process of curriculum development in regard to career access (e.g. how local employer perceptions become reflected in pre-vocational programs) should be emphasized.

7. What additional resources could enhance the project?

A variety of suggestions were made concerning (1) vocational evaluation systems (e.g. JEVS), (2) the development of handbooks on special aspects of the project (e.g. how to analyze jobs), (3) involvement of other "delivery" people (state and local agencies), (4) regular consultation with special education experts, (5) expansion into other kinds of industries (e.g. agriculture, fishing, etc.).

8. How do we get educators to approach instruction in a systematic way?

The consensus was that gradual, well planned, in-service programs were needed. This training would be non-threatening and comprehensive in the sense of helping practitioners to see the "whole picture," that is, the interrelationship of business resources, vocational and academic disciplines, and placement/follow-up needs.

9. Does this approach impact on career education for the special needs individual?

There was no doubt that the CAM does articulate well with career education goals. In linking education and employment, in pulling together the schools, the community, and possibly parents, by providing direction on career development, and by facilitating the placement of special needs students, it was felt the CAM uniquely addresses many important and minimally researched areas of career education.

10. Are there components of the model which would assist in the implementation of 94-142?

The committee felt that while career education is not specifically mentioned in the federal law, several criteria sufficiently overlap and therefore make

CAM a helpful approach to compliance with 94-142 regulations. Specifically, the requirement that schools be concerned with employment of handicapped students, the development of individualized educational plans, the formulation of long and short term goals, and systematic and private evaluation - all of these are features of the CAM.

Additional comments made by committee members were concerned mainly with the need for dissemination of the CAM and specific suggestions on how to go about it. For example, one person suggested regional workshops via state departmental networks.

2. Task Force Activities: A significant component of our first year activities was the development of an active task force comprised of educators, business representatives and specialists in rehabilitation and mental retardation. This task force provided project staff with considerable input as the CAM was being developed. They were actively involved in assisting us with:

    1. Gaining a meaningful perspective on one target population of educable mentally retarded persons.
    2. Developing viable strategies for interviewing with business and industry.
    3. Providing critiques of the job options as they were developed. Each task force member reviewed the options and made comments, from their personal expertise perspective, on factors which would affect job performance instruction and employability skills. (See PCRM, Volume II, for coded jobs and tasks.)

APPENDIX H

Evaluation Planning Report - Dr. Joseph Pedulla

Proposed Objectives for the Career Accessibility Model Project

Prepared by:
Joseph J. Pedulla
Evaluation Consultant

During my meeting with Messrs. Petzy and Etter on January 9, 1978, it became clear that there was a need for the objectives of the year 2 Career Accessibility Model project to be clearly specified. The present report is an attempt to extract these objectives from the ICR progress report dated December 16, 1977. The purpose of putting these proposed objectives in writing are these: (1) to generate further discussion about and refinements of the objectives of the project; (2) to gain consensus on what the objectives of the project really are; and (3) to determine what data needs to be gathered in order to assess whether the project's objectives have been met. In conjunction with this last point, it was determined that appropriate baseline data be gathered so that the project's impact could be assessed. These three purposes will be addressed in subsequent meetings of the project staff and the evaluator.

The format in this report for listing the project's objectives will be to state a general project goal and then to list the specific objectives that need to be accomplished in order to meet that goal. The goal statements will derive from the project model (reference Figure 1 on page 2 of the progress report). Thus, five goal statements will be presented, one each dealing with the five components of the model (generic job development, local job development, placement/follow-up, instruction, and parental involvement). It is important to note that for certain components of the model (e.g. placement/follow-up) the goal and objectives for year 2 of the project may be to lay the groundwork for achieving an ultimate goal in subsequent years.

The first goal relates to the generic job development component of the model:

> Goal I: To establish contacts with key personnel representatives in businesses and industries with large geographical focuses in order to impact upon their companies hiring policies and job requirements at the local business level.

Objectives:

1. To contact personnel managers of the identified companies and obtain names and locations of their local managers for the designated sites and towns.
2. To determine company hiring policies and how the company operates.
3. To determine the job adjustment factors specific to each company.
4. To examine the relationship between the capabilities of special needs individuals and company job requirements.
5. To redesign jobs so that special needs individuals are capable of doing them.
6. To negotiate feasible employment possibilities for special needs individuals.
7. To summarize all information gathered from the dealings with company representatives.
8. To obtain commitments from personnel representatives to urge subordinates within the organization to work with school systems and/or to meet with school personnel in local business sites.
9. To evaluate the level of difficulty for special needs individuals of each job description deemed suitable for such individuals.
10. To disseminate the information and data obtained through the process used in attaining the goal to local educational agencies for use in special education cooperative programs.

Although Goal I and its related objectives come under the domain of year 1 project objectives, it was felt that they should be included in this document for the sake of completeness. It will also be helpful in the collection of baseline and subsequent data to have these Goal I objectives explicitly stated.

The second goal statement deals with the local job development component of the project's model. Many of the objectives related to this second goal are the responsibility of the placement coordinator in the individual schools.

> Goal II: To establish links between each school and local businesses for the purpose of placing special needs students in jobs in these local businesses.

Objectives:

1. To communicate to the placement coordinators the names and locations of local managers who have hiring responsibilities (obtained in the generic job development phase).

2. To have coordinators initiate contact with the respective local managers and set up a meeting to:

    a. explain their school's programs;

    b. verify that local managers had been contacted by personnel directors;

    c. discuss the job setting relative to the career charts;

    d. obtain task outlines for the purpose of identifying jobs appropriate for their special needs students;

    e. identify possible jobs that may be redesigned so that they are appropriate for special needs students;

    f. have the local manager complete a General Employability Questionnaire (GEQ) for each job option identified.

3. To have each placement coordinator summarize in writing all relevant information obtained from their meetings with each local manager.

4. To have each placement coordinator organize files containing these written summaries.

The third goal statement deals with the placement/follow-up component of the project's model. Because little, if any, placement will actually take place prior to the summer of 1978, the goal statement and its related objectives for year 2 of the project are concerned with laying the foundation for a strong placement program in subsequent years.

Goal III: To establish a strong foundation on which to build a successful job placement program.

Objectives:

1. To instruct placement coordinators in the uses of the files established in the local job development phase for matching job placements with individual interests and abilities.

2. To aid the student in understanding the expectations of a potential employer by discussing the job description with the student.

3. To help the student make reasonable decisions concerning an appropriate job placement.

4. To develop a system for keeping track of actual job placements as well as a system for follow-up on these placements.

The fourth goal statement deals with the instructional component of the project's model.

Goal IV: To have school personnel use knowledge acquired from this project's data (e.g. task outlines, career charts, and GEQ), relative to cognitive, affective, and psycho-motor requirements of potential job placements, to meet a variety of curriculum needs.

Objectives:

1. To make school personnel (especially teachers) aware of the availability and utility of the data from this project.

2. To aid school personnel in their attempts to incorporate these data into their courses.

3. To develop instructional materials, based on these data, that can be incorporated into classroom instruction and provide teachers with instruction on their use.

The fifth and final component of the project's model, and thus the fifth goal statement, deals with parental involvement.

> Goal V: To involve parents of special needs individuals in the guidance, instruction, and preparation of their children for career placements.

Objectives:

1. To obtain parents' perceptions of their children's social and occupational needs.

2. To compare parents' perceptions of their children's social and occupational needs with those of educators in order to identify discrepancies.

3. To discuss discrepancies between parents' and educators' perceptions in order to lessen the discrepancies and best meet the needs of the student.

4. To provide parents with literature containing suggestions on how they can assist in their child's preparation for work placement.

5. To increase parental awareness of specific employment opportunities for and requirements expected of their child.

Additional objectives, not directly related to any one component of the model, but cutting across all components include the following:

1. To organize instrumentation, data, and results in such a way as to be useable by schools not part of the project.

2. To disseminate information about this project to a variety of potentially interested audiences.

3. To obtain literature searches in many areas related to this project for use as reference material.

As stated previously, appropriate baseline and follow-up data will be gathered in order to assess how well the second year of the project has met its stated objectives. In future meetings between the project staff and this evaluator, specific methods for obtaining these data will be discussed. Also to be discussed in these future meetings are clarification, addition, and/or deletion of the objectives stated in this document. A clear definition of terms, in essence a glossary, should also be on the agenda so that all involved are consistent in their vocabulary. This glossary will also provide readers of subsequent reports with a clear and accurate delineation of the meanings of terms which are used in these reports.

Revised Objectives and Needed Data
for Career Accessibility Model Project

Prepared by:
Joseph J. Pedulla
Evaluation-Consultant
April 20, 1978

The primary purposes of this report are these: (1) To clarify and expand on the goals and objectives for the current year of the project, as described in my prior report, "Proposed Objectives for the Career Accessibility Model Project;" (3) to organize these goals and objectives under six categories to be described later; and (3) to suggest appropriate data to be collected as evidence of attaining these goals and objectives. Since only Goals III, IV, and V, in my previous report, related to the current year's project activities, only these goals, and their related objectives, are discussed in this report.

School Site Staff

The six categories under which the goals and objectives, for which the school site staff is responsible, are:

1. Administrative: Activities related to overall planning and communication.
2. Guidance: Counseling students on appropriate jobs given their interest and ability.
3. Instruction: Curriculum development and teaching.
4. Evaluation: Total assessment process from diagnosis to placement and follow-up.

5. *Placement*: Coordinating linkage between student and business community.

6. *Parent*: Communicating with parents to both provide and obtain information about their child.

The organization of goals and objectives under these six categories departs somewhat from the original project model. It was felt that this categorization more adequately captured the project's current thrust and thus, that the shift to this modified categorization was warranted. All of these six functions emanate from the seed work performed in year one of the project, which established business contacts for the school site staff. The BEH/CAM staff inaugurated the seed work activities, as well as developed materials for school site staff's use. The BEH/CAM staff presently aid school site staff in the use of the materials and in keeping up the business contacts. The remainder of BEH/CAM staff's time is spent overseeing, evaluating, and reporting on the project. It should be borne in mind that the six categories above pertain to the activities of the school site staff, not the BEH/CAM staff. The latter gruop's activities and objectives are dealt with in a subsequent section of this report.

In the remainder of this section, the objectives related to three goal statements: (1) To establish a strong foundation on which to build a successful job placement process for special needs students; (2) to have school personnel use knowledge acquired from the project's data (e.g., task outlines, career charts, and GEQ), relative to cognitive, affective, and psychomotor requirements of potential job placements, to meet a variety of curriculum needs, and (3) to involve parents of special needs individuals in the guidance, instruction, and preparation of their children for career placements) are presented, using the six categories just described. After each objective, suggestions as to the type of information or data that is necessary to substantiate that the objective has been met are provided. It should be noted that although some of the objectives for the year's project relate to direct impact on students, i.e., actual student outcomes, I do not recommend that data be gathered directly from students this year. Although such data may be helpful, in some cases, very helpful, it is not crucial to the year's objectives. Clear documentation of what has gone on at the sites and what aspects of the project have been useful is needed more. Since time for data collection is severely limited, only these essential data can be gathered. To spread data collection too, this would yield poor results in all areas. Applying this same reasoning, I recommend only limited data collection from parents. Again, such data may be very useful and enlightening, but not crucial to the year's objectives. This limited time for data gathering results, as we shall see in this section, in obtaining information from either existing files or instrumentation, or from interviews with school site staff. Following are the objectives for school site staff organized under the six categories already presented.

1. Administrative

   Objective 1: The school site project staff is to communicate their program with other programs in the school.

   Data to be Gathered:

   (a) Interviews with school site project staff in which they are explicitly asked to document to whom, in their school, they communicated about their program and what coordination efforts were made.

   (b) Interviews with teachers, or other school personnel cited in (a) to determine the value of the communication or coordination efforts.

2. Guidance

   Objective 2: The school site project staff is to aid the student in understanding the expectations of a potential employer by discussing the job description (task outline), career chart, GEQ, etc., with the student.

   Data to be Gathered:

   (a) Interviews with school site project staff in which they are asked to identify students, by name, with whom they used any of the materials as an aid in helping the student understand employer expectations.

(b) During this interview, school site staff should be asked to rank order the following instruments or information, with regard to their helpfulness with the task in Objective 2: (1) Task outlines, (2) career development chart, (3) GEQ, (4) Q-sort, (5) job booklets, (6) forms (company summary form, student summary form), and (7) contacts with business.

Objective 3: The school site project staff is to help the student make reasonable decisions concerning an appropriate job placement.

Data to be Gathered:

(a) Impressions of school site staff as to their effectiveness in accomplishing this objective, especially with a view toward the usefulness of BEH/CAM materials, in attaining this objective.

(b) Specific examples or instances of students who made "reasonable" decisions, or changed from "unreasonable" to "reasonable" decisions about an appropriate job placement, should be obtained, with "reasonable" being defined.

3. Instruction

Objective 4: The school site project staff is to use coding scheme of task difficulties from task outline to aid in developing learning experiences.

Data to be Gathered:

(a) Interviews with school site staff in which they are asked if the coding of tasks had an impact on instruction.

(b) Specific documentation or examples of cases in which coding had an impact.

Objective 5: Project materials are to aid in student acquisition of both objective and subjective knowledge about jobs.

Data to be Gathered:

(a) Uses made of project materials to instruct students on employer's expectations (objective knowledge) and to foster in students better work habits and coping skills (subjective knowledge).

(b) Impressions and examples from school site staff on helpfulness of materials in getting students to describe their feelings about work settings, helping student's accept criticism better, and make better judgements.

(c) Examples of instructional techniques which have evolved from use of the materials with students.

4. Evaluation

Objective 6: The school site project staff is to develop a system for follow-up on job placements.

Data to be Gathered:

(a) School site staff should provide a detailed description of the system.

(b) Since all sites had some system prior to the project, evidence of modifications in the system, as a result of the BEH/CAM intervention, should be obtained by asking staff what changes can be attributed to the intervention.

(c) Lack of change in the system may not necessarily indicate a lack of impact from the intervention. It may be that the existing system was viewed as adequate. Lack of change in the system should be explored in detail with school site staff to determine if such is the case.

5. Placement

Objective 7: The school site project staff is to use the files established in the local job development phase to match job placements with individual interests and abilities.

Data to be Gathered:

(a) The files should be examined to determine what they contain and if they have been kept up-to-date.

(b) Specific uses of the files should be obtained through interviews with school site staff.

(c) Information on the use of the coding schemes on the task outlines should be obtained, e.g., have the files been organized around the three levels of ability used in coding the tasks? Has the staff coded new job descriptions in a similar manner to the coding of the original tasks?, etc.

Objective 8: The school site project staff is to develop a system for keeping track of actual job placements.

Data to be Gathered:

a. A detailed description of the system should be obtained.

b. Differences in this system as a result of the BEH/CAM intervention should be explored in interviews with school site staff.

6. Parent

Objective 9: The school site project staff is to:

a. Obtain parents' perceptions of the children's social and occupational needs.

b. Compare parents' perceptions of their children's social and occupational needs with those of educators in order to identify discrepancies.

c. Discuss discrepancies between parents' and educators' perceptions in order to learn the discrepancies and best meet the needs of the student.

d. Increase parental awareness of specific employment opportunities for and requirements expected of their child.

Data to be Gathered:

a. Since the Q-sort instrument was designed primarily for use with parents, clear documentation of its utility in helping to achieve this objective must be obtained. School site staff should be asked how frequently the Q-sort was used with parents, and how successful the outcomes were.

b. With regard to each component of this objective, careful documentation on frequency of contact with a set of parents, as well as the frequency of contact with different sets of parents, should be obtained.

c. Information about what transpired in interactions between school site staff and parents should be obtained with special attention being paid to the utility of BEH/CAM materials in these interactions.

d. Since part of the parent component is designed to gain support and understanding of the project, school site staff should be asked to assess the accomplishment of this aim.

It would be helpful to obtain telephone interviews with a random sample of parents in each site to obtain their views about the BEH/CAM project. The limited amount of time and resources available this year may preclude this possibility, but in future years these interviews must be incorporated into the evaluation design. Similarly, student perceptions about the project would be helpful, but cannot be obtained this year. Interviews with students should also be incorporated into the evaluation design for future years.

The objectives listed in this section, and the suggested data to be collected, place the emphasis on documenting what activities have transpired in the sites. Of necessity, this documentation depends heavily on interviews with placement coordinators and other school site staff. The small number of sites makes interviewing a viable approach and much valuable information about what has worked and what has not, what has been helpful and what has not, etc., with respect to the BEH/CAM project, can be obtained from well-structured interviews.

BEH/CAM Staff

The remaining section of this report deals with objectives and activities for which the central BEH/CAM staff is responsible. Again, suggestions about the appropriate data to be gathered in order to document that the objectives have been met are presented.

Objective 10: The BEH/CAM staff is to develop instruments and materials that can be used in the sites to aid in the various components of the project's model.

Data to be Gathered: Copies of all instruments and materials, together with a description of their development and intended uses must be gathered.

Objective 11: The BEH/CAM staff is to make school site staff aware of the availability and utility of the instruments and materials developed.

Data to be Gathered: Careful documentation of meetings (e.g., dates and with whom) and reports that have been designed to achieve this objective must be obtained.

Objective 12: The BEH/CAM staff is to aid school site staff in their attempts to incorporate these data into their courses.

Data to be Gathered: Similar to the data from Objective 11, detailed documentation of these efforts must be gathered.

Objective 13: The BEH/CAM staff is to maintain a National Advisory Committee comprised of experts in the field who react to the project and offer suggestions for improvements.

Data to be Gathered: List of members of this committee, their affiliations, and expertise, dates of meetings with this committee, and summaries of what transpired at these meetings, all need to be gathered.

Objective 14: The BEH/CAM staff is to disseminate information about the project to a variety of interested audiences.

Data to be Gathered: Copies of newsletters and brochures and when mailed, dates and summaries of workshops, and type of people comprising the interested audiences (e.g., parents, consultants, teachers, etc.) should be obtained. Bibliographies of literature searches conducted in areas related to this project and people to whom distributed should also be gathered.

Objective 15: The BEH/CAM staff is to have an external consultant conduct an evaluation of the project.

Data to be Gathered: Data of meetings, nature of the evaluation, and an evaluation report should comprise the data necessary to demonstrate that this objective has been attained. The formative nature of the evaluation component must be stressed.

It is my hope that this report will serve as a base from which we can develop appropriate interview schedules and organize all the necessary data collection activities. Two points need to be made in summary. First, one could argue that the BEH/CAM staff objectives are prior to the school site staff objectives and, therefore, should precede them in this report. Both sets of objectives are ongoing, however, and interact with each other. The primary efforts for collection of data that do not currently reside in files relate to the school site staff objectives. It was for this reason that these objectives were presented first in this report.

The second point that must be made is that the school site staff in Massachusetts, particularly the placement coordinators, wear many hats. They are in general overworked. This point impacts upon the potential strength of the BEH/CAM intervention. It may be that the school site staff in Massachusetts would like to use, and see value in, the BEH/CAM materials for strenghtening their programs, but simply do not have the time needed to use these materials adequately. It is crucial that this point be addressed, and evidence be obtained from the school site staff themselves that they simply did not have the time to utilize the materials to the extent they would have liked. Unless this information is gathered, assuming it is true, the project could look bad, when in fact the problem may not be with the project at all, but with the work schedules of the people who are to implement the project in the sites. I can not stress enough the importance of obtaining accurate and detailed information relative to this point.

APPENDIX I

Critical Incident Documentation Form

CAM REPORTING FORM

Date ______________ Reporter ______________ School ______________ References ______________

INCIDENT	OUTCOME	COMMENTS

APPENDIX J

CAM Summer Workshop Materials

BEH PLANNING AND WRITING
WORKSHOP GOALS

Assessment of Needs of Students

Clarification of Roles

Development of Team Processes

Familiarity with the Use of ICR's Data Bank

Formulation of Action Plans

Preparation for Participation in Positive Evaluation Processes

Planning for Parental Involvement

Understanding and Acceptance of ICR's Approach to
Growth and Development of School Programs

LIST OF NEEDS

Name of Student (Preassessment Sheet)

Placement

Prevocational Preparation - Lessons, Counseling

Instruction While in Placement

Follow-Up - GEQ, Assessment Tools

Comments:

Subject Area: Clients:

Cluster Occupations

Activities/Rationale

Materials/Strategies

Outcomes/Evaluation

PROTO-TYPES (Operational Definition)

The staff of the Career Accessibility Model, in its role as a support resource, will be developing several proto-type formats which will address specific data uses. These proto-types will be designed to assist in creating within the demonstration site a mind-set for more creative treatment of the target population. They are by no means an attempt to "force" in any of the school districts, a rigid blueprint for teacher/student interaction. They are, rather, to be looked upon as representative samplings of the ways in which the data, accumulated during the past year, might be utilized given the variability of school environments.

The key to looking at the data's potential impact is to assess the status of career development in each of the schools, identify needs which should be met to effect each districts project objectives and then assess the potential of the data for assisting in the realization of the objectives.

If any of the proto-types are used they should be monitored by school professionals and project staff. By so doing they remain in a dynamic rather than a static posture. This should result in any modifications which are deemed appropriate to be incorporated in future revised editions. By following this procedure, we can effect for the proto-types a formative evaluation process - improvement.

Demonstration staff should feel free to develop new proto-types which can be shared, utilized and evaluated during the implementation period.

PROTO-TYPE
Inter-Disciplinary Instruction

Program Area: Instruction Clients: EMR Students

Source: Computer Printouts - Task Outlines

Professional Users:
- Academic Teachers
- Special Needs Teachers
- Resource Room Teachers
- Addicts

Objective: To assist students, through a team teaching approach, with the development of certain academic skills as they relate to a job and its performance.

(Rationale)

Rather than provide students with experiences designed to develop academic learning in a vacuum, the intent of this particular prototype is to provide an inter-disciplinary approach to instruction with the student as the focal point and interaction coming from several perspectives. This approach should have a tendency to reinforce essential learnings as they will be focused on a singular job or set of job performances. Relationships of academic skill development should become more obvious to the student as intensive emphasis is placed on a particular work environment.

Example

Job: Service Station Attendant

Major Responsibility: Performs Sales Duties

Tasks:
1. Practices pump island sales
2. Pumps gas
3. Utilizes credit card machine
4. Employs cash register
5. Answers telephone

The above tasks constitute what is essentially demanded of a person in a service station environment performing sales duties. This collection of tasks form a closely related series of performances, the development of which might be aided by not only developing the psycho-motor aspects of the skills, but also the cognitive.

Upon analysis of these tasks one can easily recognize the need for communication skills and computational skills. Further, the whole job of service station attendant can be related to the broader concept of transportation in a social studies curriculum.

Academic Areas	Job Tasks	Specific Academic Skills/Concepts
Computation	3. Utilizes credit card machine	Addition/dollar and cents
Computation	4. Employs cash register	Addition/dollars and cents/change making
Communication/ Computation	2. Pumps gas	Listening/speaking/ following verbal directions/ability to read gauges, i.e. oil dip stick, tire pressure gauge/gas pump/ measurement (oil, water, anti-freeze, etc.

Social Studies	General		
Science	Relationship	-	pollution
Consumer Education		-	travel safety
		-	geography
		-	forms of transportation
		-	loans (credit)
		-	pricing

PROTO-TYPE
Technical Vocabulary List

Program Area: Instruction

Clients: EMR Students - Involved with the Restaurant Sub-Cluster/Waiter/Waitress

Source: Computer Printouts - Task Outlines

Validation: Reviewed by incumbents and/or supervisors in the companies being used.

Professional Users: Special Education Teachers
Resource Room Teachers
Academic (English Teachers)

Objective: To provide students with the understanding and ability to relate performance in the work environment with the language commonly used.

Rationale: In order to effect the most efficient and effective strategies for students to learn the technical vocabulary, certain formats might be considered. In addition to the specific printed list, students should be provided with a variety of stimuli. This can be done by having each word on the list represented by a photograph showing the word in place in the environment.

Examples

1. Place settings - photograph should show a correct place setting with placemats, china, glassware, napkins and silverware in the appropriate positions (visual).

2. Students might be provided with the items listed in #1 and asked to replicate the photograph. They might use the photograph as a guide and gradually, through repetition, be able to "set the place" without the photograph.

What we essentially are doing in the above examples is to create an action-based learning situation using various stimuli and having the student not learn the technical vocabulary by rote, but by becoming a participant in its meaning.

By virtue of this approach the evaluation of a students' learning goes beyond an assessment of cognition vis-a-vis, a paper and pencil test. We can assess his internalization of the word in his action/performance.

PROTO-TYPE
Developing Parent Awareness

Program Area: Guidance

Clients: Parents of EMR Students

Source: GEQ Report
Task Outlines

Objective: To assist parents in becoming more effective and positive influences on the career developed of their handicapped children.

Professional Users:
Guidance Counselors
Special Education Administrators
Special Education Teachers

Rationale: If we can assume that one of the major influences in the career development of any student is parents, then it becomes one of the schools responsibilities to provide information which will guide parents. The data which have been developed in the BEH Project should be carefully scrutinized and then utilized in a manner which is understandable by parents. In doing so, we can significantly enhance the effectiveness of parents as they impact on the career development process. Given the assumption mentioned above, it might be hypothesized that our intervention will broaden a parent's understanding of the career options available to handicapped persons and the demands of those options. Given these understandings parents might be better equipped to reinforce at home the instruction and counseling provided by the school.

Example

Parent Information Booklets

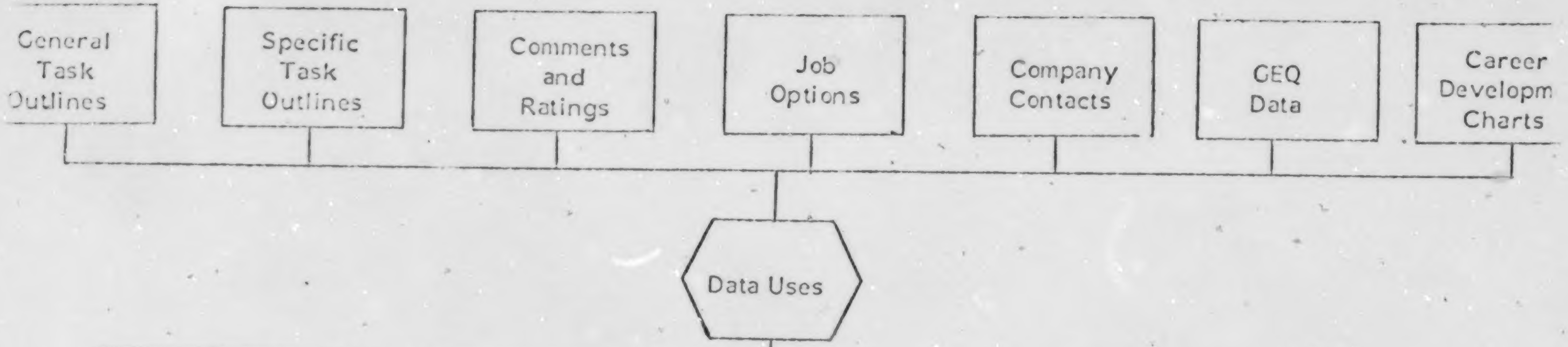
Booklets could be developed which would explain families of options from the following perspectives -

a. Work environments: where the jobs are located and with what companies.

b. A description of the nature of the tasks which are required on the job. (Care should be taken to make the tasks simple in description.)

c. The general employability skills required on the job and an explanation of these in specific terms (i.e. grooming, dress and personal cleanliness for waiter/waitress).

d. Suggested ways in which parents might assist at home in helping students develop the employability skills (i.e. requiring that students are clean (personally) and groomed at dinner time; requiring appropriate dress for different social occasions; being punctual, carrying to completion tasks "around the house," which children are asked to do; encouraging the use of public transportation).


General Task Outlines
Specific Task Outlines
Comments and Ratings
Job Options
Company Contacts
GEQ Data
Career Developm Charts
Data Uses

INSTRUCTION

1. Criterion Based Instruction (St. Evaluation)
2. Cooperative Education
3. Field Observations
4. Developing Learning Environments
5. Technical Vocabulary
6. Continuous Learning
7. Interdisciplinary Instruction
8. Sequencing Learning Activities
9. Developing Teacher Awareness of Work Requirements, Specifications

GUIDANCE

1. Exploratory Counseling
2. Awareness Counseling
3. Developing Parent Awareness

PLACEMENT

Communicating Student Abilities to Employers

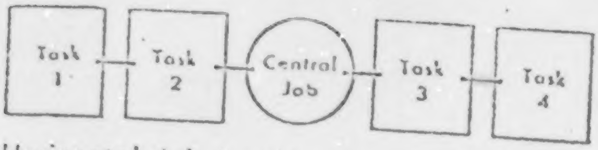
Identifying "jobs"

Evaluating Job Performance

Linking World of Work Requirements to Learning

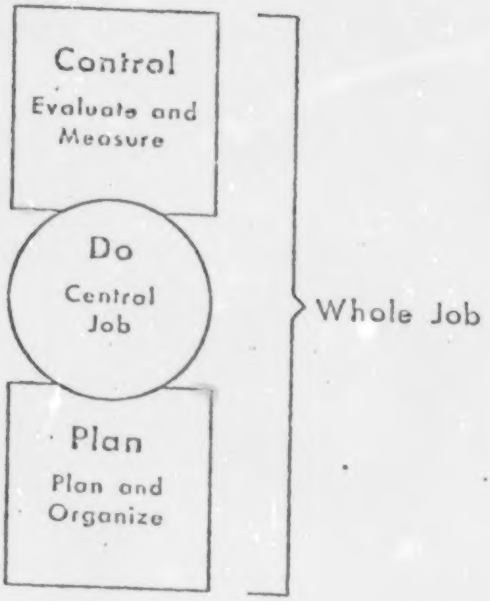
Identifying "Employability" Skills

EXHIBIT 1:


Task 1
Task 2
Central Job
Task 3
Task 4

Horizontal Job Loading

EXHIBIT 2:


Control
Evaluate and Measure
Do
Central Job
Plan
Plan and Organize
Whole Job

Vertical Job Loading

Chart 2.

A SCHEME FOR THINKING ABOUT IMPROVING WORK ITSELF

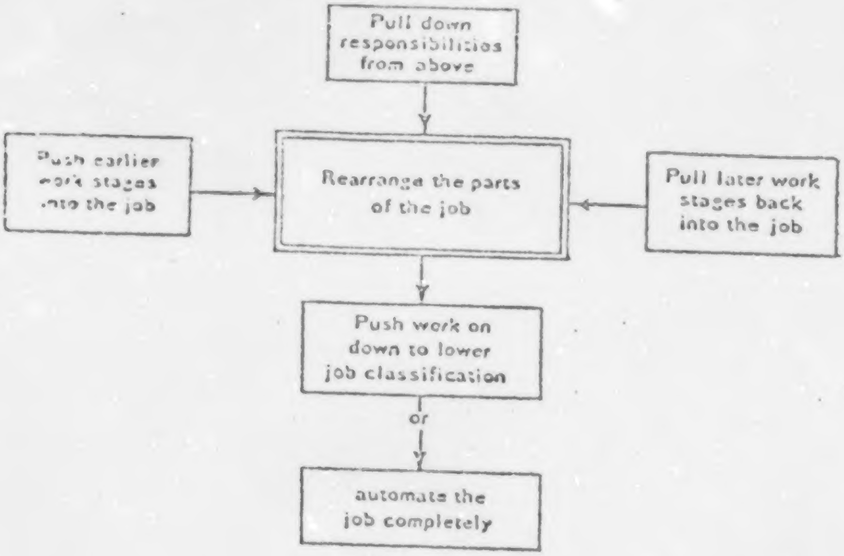

Pull down responsibilities from above
Push earlier work stages into the job
Rearrange the parts of the job
Pull later work stages back into the job
Push work on down to lower job classification
or
automate the job completely

Chart 3.

THE DEVELOPMENT OF A MODULE
(Natural Units of Work)

A. Pulling Down Responsibilities from Above

1. What do we let an employee do in an emergency or in the absence of the supervisor that he or she might be allowed to do all the time?
2. What does the supervisor now do that the individual could do once we are sure that he or she is competent?
3. What supervisory controls have been established that can be reduced or eliminated?
4. What can we do to let the employee do more of the planning and scheduling of the work itself?

B. Pushing Earlier Work Stages into the Job

1. What steps that precede the work should be a part of the job itself if the person is to have a complete module of work?
2. What information about schedules, due dates, and other facts about the job should the employee have as an aid to planning work?

C. Pulling Later Work Stages Back into the Job

1. Are there any tasks now done after the employee's work that would make the module more meaningful and responsible?
2. Are there any later inspection, verification, or checking procedures that can be dropped or performed by the employee?

D. Pushing Work Down to Lower Job Classifications

1. What tasks should be pushed down to a job at a lower level of classification?
2. What tasks could be automated completely?

E. Rearranging the Parts of the Job

1. Was there once a way of handling this work that was more meaningful or satisfying in some respect?
2. Can products, accounts, or customers be divided into meaningful classes so that an employee might be given the responsibility for a particular client or product?
3. What individualized measurements are there for the employee to personally develop an index or set of measurements to check work progress and correct mistakes?
4. What training can employees give to one another? What specialized knowledge might they be encouraged to build up? What new things could they learn to do that someone else now does?

Chart 4.

GENERAL EMPLOYABILITY QUESTIONNAIRE
INSTRUCTIONS

Attached are two copies of the General Employability Questionnaire developed to gather information from local employers. Each is marked at the top with a different job title, Superintendent of Schools and Cafeteria Worker. Applying your own perspective please fill out each questionnaire for the position indicated.

SUPERINTENDENT OF SCHOOLS

GENERAL EMPLOYABILITY QUESTIONNAIRE

HOW CRITICAL TO KEEPING THIS JOB IS A PERSON'S ABILITY TO:

	Not Critical		Very Critical	
	1	2	3	4
1. care for his/her personal needs (dressing properly, grooming adequately, keeping physically fit, staying healthy)?	☐	☐	☐	☐
2. know about and obtain transportation to work?	☐	☐	☐	☐
3. demonstrate self awareness (identifying own emotions, accepting praise and criticism, coping with "rush" hours)?	☐	☐	☐	☐
4. achieve socially responsible behavior and maintain good interpersonal skills (knowing roles, listening and responding, making and maintaining friendships, relating to customers, acting as part of a team)?	☐	☐	☐	☐
5. be able to carry out independent functions (planning, taking initiative, working alone)?	☐	☐	☐	☐
6. be able to make decisions and solve problems (understanding goals, looking at alternative, knowing where to find advice)?	☐	☐	☐	☐
7. communicate adequately with others (speaking clearly, listening to others)?	☐	☐	☐	☐

HOW CRITICAL TO KEEPING THIS JOB IS A PERSON'S ABILITY TO:

	Not Critical		Very Critical	
	1	2	3	4
8. demonstrate satisfactory physical-manual skills (balance, coordination, dexterity, stamina, endurance)?	☐	☐	☐	☐
9. exhibit appropriate work habits and behaviors (following directions, working at satisfactory rate, accepting supervision, being punctual, demonstrating safety)?	☐	☐	☐	☐
10. be able to manage his/her personal and family finances (keeping a budget, making wise expenditures, understanding credit, maintaining a check book, understanding fringe benefits, knowing how to use fringe benefits)?	☐	☐	☐	☐
11. be able to utilize recreational and leisure time properly (competitive bowling team, camping, picnics, sports, company socials, church activities, hobbies)?	☐	☐	☐	☐
12. maintain relationships with friends and relatives when off the job?	☐	☐	☐	☐

* Information in this questionnaire is derived in part from Project Price Working Paper #4.

CA[illegible]A WORKER (INSIDE A KITCHEN)

GENERAL EMPLOYABILITY QUESTIONNAIRE

HOW CRITICAL TO KEEPING THIS JOB IS A PERSON'S ABILITY TO:

	Not Critical 1	2	3	Very Critical 4
1. care for his/her personal needs (dressing properly, grooming adequately, keeping physically fit, staying healthy)?	☐	☐	☐	☐
2. know about and obtain transportation to work?	☐	☐	☐	☐
3. demonstrate self awareness (identifying own emotions, accepting praise and criticism, coping with "rush" hours)?	☐	☐	☐	☐
4. achieve socially responsible behavior and maintain good interpersonal skills (knowing roles, listening and responding, making and maintaining friendships, relating to customers, acting as part of a team)?	☐	☐	☐	☐
5. be able to carry out independent functions (planning, taking initiative, working alone)?	☐	☐	☐	☐
6. be able to make decisions and solve problems (understanding goals, looking at alternative, knowing where to find advice)?	☐	☐	☐	☐
7. communicate adequately with others (speaking clearly, listening to others)?	☐	☐	☐	☐

HOW CRITICAL TO KEEPING THIS JOB IS A PERSON'S ABILITY TO:

		Not Critical		Very Critical	
		1	2	3	4
8.	demonstrate satisfactory physical-manual skills (balance, coordination, dexterity, stamina, endurance)?	☐	☐	☐	☐
9.	exhibit appropriate work habits and behaviors (following directions, working at satisfactory rate, accepting supervision, being punctual, demonstrating safety)?	☐	☐	☐	☐
10.	be able to manage his/her personal and family finances (keeping a budget, making wise expenditures, understanding credit, maintaining a check book, understanding fringe benefits, knowing how to use fringe benefits)?	☐	☐	☐	☐
11.	be able to utilize recreational and leisure time properly (competitive bowling team, camping, picnics, sports, company socials, church activities, hobbies)?	☐	☐	☐	☐
12.	maintain relationships with friends and relatives when off the job?	☐	☐	☐	☐

* Information in this questionnaire is derived in part from Project Price Working Paper #4.

SUMMARY

By Organization

ORGANIZATION ⇄ VARIABLES

All
Subgroups (Retail/Transportation)
Individuals

Overall ratings
(1-9) vs (10-12)
Individual variables

By Job

JOB(S) ⇄ VARIABLES

All
Clusters (Waiter/Waitress, Salesperson)
Individuals
Tasks (Customer Services, Handling Money)

Overall ratings
(1-9) vs (10-12)
Individual variables

BUSINESSES/SCHOOLS

A quantification of perceptions of Personnel Managers/Teachers toward job adjustment factors for particular jobs in their organizations.

Respondee -	Personnel Manager (Teacher)
11 companies	(1-9) jobs
(3 schools)	(2 jobs)

Methodological Flaws

1. Multi-stemmed
2. Sample size

Results - Tentative trends only

BUSSINESSES/SCHOOLS
Analysis Format

The GEQ summaries can be used to answer questions concerning the relationship between several factors - two lines of thinking.

1. About businesses - can we make statements about businesses/schools?

   What was the (overall 1-12, 1-9 vs 10-12, individual) median rating for all businesses/schools taken together? for subgroups of businesses/schools with community interests? for individual companies/schools?

2. About jobs - can we make statements about jobs?

   What was the (overall 12, 1-9 vs 10-12, individual) median ratings for all jobs taken together? for different clusters of jobs? for individual jobs? for particular sets of tasks?

APPENDIX K

Q-Sort Materials, Sample of Instructional Booklet and Student Files

Q-SORT RECORD FORM

Name of Student: Russell Sex: M Test Date: 3·3·78
Address: Plainville Phone: 699-8863 Date of Birth: 4·23·61
School: King Philip Teacher: Helen Brennan Grade: 11 Age: 16
Name of Respondent: Russell Relationship to Child:

Card No.	Behavior	Teacher	Respondent	– Difference	Target Concerns Difference Squared
1	Gets work done on time		3		
2	Pokes or hits classmates		7		
3	Out of seat without permission		4		
4	Scores high in spelling		3		
5	Plays with objects while working		7		
6	Scores high in reading		7		
7	Disturbs neighbors by making noises		6		
8	Is quiet during class time		3		
9	Tips chair often		5		
10	Follows directions		2		
11	Smiles frequently		2		
12	Often taps foot, fingers, or pencil		6		
13	Pays attention to work	1	1		
14	Works slowly		4		
15	Throws objects in class		8		
16	Reads well orally		4		
17	Talks to classmates often		8		
18	Scores high in English		4		
19	Talks out without permission		9		
20	Rocks in chair		6		
21	Scores high in arithmetic		5		
22	Asks teacher questions		5		
23	Uses free time to read or study		6		
24	Works until the job is finished		5		
25	Walks around room during study time		5		

NOTE:
A Difference Squared o
"16" or above, is a Targ
Behavior.

The Card No. will indica
the specific behaviors.

TARGET CONCERNS
(List Pinpointed Behavi

1.
2.
3.
4.
5.

PRE SUM =

POST SUM =

368

Q-SORT RECORD FORM

ame of Student: Russell Sex: Male Test Date: 3/8/78
ddress: Plainville Phone: 699-8863 Date of Birth: 4/23/61
hool: King Philip Teacher: Helen Bremner Grade: 11 Age: 16
ame of Respondent: __________ Relationship to Child: __________

rd	Behavior	Student ~~Teacher~~	Parent ~~Respondent~~	Difference	Target Concerns Difference Squared
	Does assigned chores	3			
	Does his homework on time	3			
	Goes to bed without problems	1			
	Comes home when he should	2			
	Argues with parents	9			
	Has friends	3			
	Likes school	4			
	Cries or sulks when he doesn't get his own way	4			
	Throws temper tantrums	8			
	Likes to watch T.V.	2			
	Likes to read	8			
	Plays alone	7			
	Eats between meals	7			
	Is overweight	6			
	Is destructive or property	5			
	Gets ready for school on time	4			
	Makes own decisions	6			
	Chooses own clothes	4			
	Is unhealthy	7			
	Fights with brothers and sisters	6			
	Has a messy room	5			
	Responds to rewards	5			
	Does acceptable school work	6			
	Is a restless sleeper	5			
	Stretches the truth	5			

NOTE:
A Difference Squared of "16" or above, is a Target Behavior.

The Card No. will indicate the specific behaviors.

TARGET CONCERNS
(List Pinpointed Behaviors He

1. __________
2. __________
3. __________
4. __________
5. __________

PRE SUM = __________

POST SUM = __________

Q-SORT RECORD FORM

Name of Student: Russell x: M Test Date: 3/1/78
Address: Plainville Phone: 699- 8863 Date of Birth: 4/23/61
School: King Philip Teacher: Helen Brennan Grade: 11 Age: 16
Name of Respondent: ______ Relationship to Child: ______

ard o.	Behavior	Teacher	Respondent	Difference	Target Concerns Difference Squared
1	Dresses appropriately	4	2	2	4
2	Exhibits proper grooming	7	1	6	36
3	Transports himself to and from work	3	6	3	9
4	Knows what he likes	3	2	1	1
5	Knows what he is good at	4	4	0	0
6	Exhibits proper behavior in public places	2	8	6	36
7	Follows instructions	4	3	1	1
8	Knows how to listen and respond	5	4	1	1
9	Knows how to maintain friendships	5	3	2	4
0	Understands impact of his behavior on others	5	4	1	1
1	Can organize his own tasks, duties, and commitments	9	4	5	25
2	Distinguishes between good/bad, harmful/beneficial, etc.	4	7	3	9
3	Knows where to find sound advice	6	5	1	1
4	Anticipates consequences	5	5	0	0
5	Speaks so that he can be understood	8	6	2	4
6	Writes and spells sufficient for job applications, telephone messages, etc	6	5	1	1
7	Reads above 2nd grade level	5	5	0	0
8	Recognizes emergency situations	7	5	2	4
9	Accepts supervision	3	9	6	36
0	Is punctual	7	7	0	0
1	Knows of appropriate safety	6	8	2	4
2	Works well with others	2	3	1	1
3	Demonstrates balance, coordination, and dexterity	6	6	0	0
4	Can work a full eight hours	1	6	5	25
5	Stays physically fit	8	7	1	1

NOTE:
A Difference Squared of "16" or above, is a Target Behavior.

The Card No. will indicate the specific behaviors.

TARGET CONCERNS
(List Pinpointed Behaviors He

1. Proper Groomin
2. Recognizes Emer. Situ
3. Organize duties [illegible]
4. ______
5. ______

PRE SUM = ______

POST SUM = ______

WORK

PEOPLE

DO

IN

RESTAURANTS

The jobs in this booklet relate to work people do in restaurants. The lists will help you to get to know about different kinds of jobs. When you read the lists, think about yourself doing the jobs. This book will help you to learn about the things you like to do. If there are words you do not understand, ask your teacher for help.

BRIGHAM'S
They Serve Sandwiches
And Ice Cream

Kitchen Helper

1. Performs cleaning, sanitation, and related safety duties.
2. Practices personal cleanliness.
3. Cleans floors in kitchen (or other areas)
4. Washes walls, work tables, and counter tops.
5. Sprays walls, work tables, and counter tops with a special cleaner.
6. Cleans sinks.
7. Performs other cleaning and safety duties.
8. Takes out trash.
9. Cleans rest rooms.
10. Keeps storage areas for foods, supplies, and equipment in order.

11. Moves clean dishes, glasses, forks, spoons, knives, and trays from the storage area to the service area.

12. Removes and cleans small appliances from counter after use.

13. Performs dining room, counter service, and other duties.

14. May wait on customers.

15. Wraps leftovers for customers to take home.

16. Cleans relish trays, dessert containers, coffee maker, and other things.

17. Washes dishes.

18. Stocks supplies and retail items.

BRIGHAM'S
They Serve Sandwiches
and Ice Cream

Waiter and Waitress

1. Welcomes customers to the restaurant.
2. Listens to and talks with customers.
3. Takes orders for food and drink.
4. Gives menu to patrons.
5. Writes a customer's order on a form.
6. Gives order to cook.
7. Serves food and drinks.
8. Serves ice water.
9. Serves food from kitchen.
10. Serves non-alcoholic drinks.
11. Performs other serving duties.
12. Prepares food at the counter.
13. Wraps leftovers for customers to take home with them.

14. Prepares take-out orders.

15. Adds check.

16. Maintains necessary supplies to serve meals.

17. Sets table.

18. Maintains well-supplied station.

19. Maintains counter supplies.

20. Performs clean-up duties.

21. Cleans throughout the day when needed.

22. Cleans after customer leaves.

23. Cleans before closing.

24. Performs monthly cleaning duties.

25. Performs other duties.

BURGER-KING
Home of the Whopper

Waiter and Waitress

1. Welcomes customers to restaurant.
2. Asks customer if order is to stay or to go.
3. Answers questions about food served at Burger-King.
4. Takes orders for food and drinks.
5. Records and memorizes orders.
6. Calls in orders.
7. Serves drinks (soda, milk shakes)
8. Receives food from the cook.
9. Serves food to customer.
10. Prepares take-out orders from counter.
11. Prepares specially requested orders that are not on the menu.

12. Adds check.
13. Accepts payment.
14. Maintains a well-supplied station.
15. Maintains counter supplies.
16. Cleans throughout the day.
17. Clears after customer leaves.
18. Cleans before closing.
19. Performs monthly cleaning duties.
20. Performs other duties.

BURGER-KING
Home of the Whopper

Set-Up Person

1. Arrives about two hours before opening.
2. Fills container of salt, pepper, ketchup, mustard, relish, etc.
3. Slices tomatoes.
4. Cleans up
5. Starts broiler, etc.
6. Starts French Fry Maker.
7. Cleans up grounds.

BURGER-KING
Home of the Whopper

Kitchen Worker

1. Prepares part of the customer's order - drinks, sandwiches, french fries, etc.
2. Places order in serving area.
3. Cleans up.

THE MARRIOTT HOTEL
A Place Where People
Sleep and Eat When They
Are Away From Home

Kitchen Helper

1. Performs cleaning and safety rules.
2. Practices personal cleanliness.
3. Maintains clean floors in kitchen (or other areas).
4. Washes walls, work tables and the counter tops with special cleaner.
5. Sprays walls, work tables, and the counter tops with special cleaner.
6. Cleans sinks.
7. Maintains storage areas for foods, supplies, and equipment.
8. Takes steps to prevent or kill unwanted bugs or pests.
9. Controls grease fires with fire extinguisher.

10. Performs other cleaning and safety duties.

11. Moves clean dishes, glasses, forks, spoons, knives, and trays from the storage area to the service area.

12. Removes and cleans small appliances from counters after use.

13. Performs dining room, counter service and other duties.

14. Prepares trays of food for customers.

15. May wait on tables.

16. Prepares rolls and butter.

17. Wraps leftovers for customers to take home.

18. Cleans relish trays, dessert containers, coffee maker, etc.

THE MARRIOTT HOTEL
A Place Where People
Sleep and Eat When They
Are Away From Home

Dishwasher

1. Performs cleaning and safety duties.
2. Practices personal cleanliness.
3. Maintains clean floors in kitchen and in other areas.
4. Washes walls, work tables, and counter tops.
5. Sprays walls, work tables, and the counter tops with special cleaner
6. Cleans sinks.
7. Washes pots, dishes, and utensils.
8. Scrapes dishes and trays.
9. Cleans stains and tarnish from any metalware.
10. Cleans kitchen machinery, appliances, and equipment.
11. Separates waste materials.

12. Removes waste materials from kitchen.

13. Operates bottle-crushing machine.

14. Steam cleans, hoses, and disinfects the garbage cans.

15. Takes steps to prevent or kill unwanted bugs or pests.

16. Controls grease fires with a fire extinguisher.

17. Performs other cleaning, sanitation, and related safety duties.

18. Keeps storage area for foods, supplies, and equipment in order.

19. Stores and maintains storage of the dishes, trays and silverware.

20. Stores and maintains kitchenware and utensils.

21. Moves clean dishes, glasses, forks, spoons, knives, and trays from the storage area to the service area.

THE MARRIOTT HOTEL
A Place Where People
Sleep and Eat When They
Are Away From Home

Dining Room Attendant

1. Serves food and drinks.
2. Serves ice water.
3. Serves food from the kitchen.
4. Sets tables.
5. Maintains necessary supplies to serve meals.
6. Maintains a well-supplied station.
7. Performs clean-up duties.
8. Cleans throughout the day.
9. Clears after customer leaves.
10. Cleans before closing.
11. Performs monthly cleaning duties.

THE MARRIOTT HOTEL
A Place Where People
Sleep and Eat When They
Are Away From Home

Salad Maker

1. Prepares and maintains salad items and dressings.
2. Prepares and maintains relish trays.
3. Supplies dessert tray.

McDONALD'S
The Place With
The Golden Arches

Counter Person

1. Greets customers to restaurant.
2. Observes customer needs.
3. Listens to and talks with customer.
4. Takes orders for food and drink.
5. Serves food from kitchen.
6. Prepares food at the counter.
7. Performs other serving duties.
8. Prepares take-out orders.
9. Prepares specially requested orders that are not on the menu.
10. Maintains necessary supplies to serve meals.

11. Sets table.

12. Maintains well-supplied station.

13. Maintains counter supplies.

14. Performs clean-up duties in service are.

15. Cleans throughout the day upon request.

16. Clears after customer leaves.

17. Cleans before closing.

18. Performs monthly cleaning duties.

19. Waits on customers under rush hour conditions.

20. Performs other duties as required.

McDONALD'S
The Place With
The Golden Arches

Maintenance Person

1. Cleans back room.
2. Cleans tables.
3. General maintenance.

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This project is being conducted in compliance with the following civil rights regulations:

"No person in the United States shall on the ground of race, color, or national origin, be excluded from participation or be denied the benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance."

DATA SUMMARY SHEET

[illegible]

Name of Company Arco
Name of Local Manager Dennis
Jobs Considered - (Entry Level)
SSA

TO's Needed SSA

TO's Delineated SSA
Willingness to Cooperate 3 1-7 scale
Openess to Design 1-7 scale

Company Problems

Work Aspects

Career Options

Students Considered
Students Placed
Performance in Company

Comments
Didn't need anyone

e of Store Dcco Location Foxboro Name of Manager Dennis

Contact in Parent Company None

d By Coordinator 12-14-77

Store Manager Informed By Superior? No How?

Coordinator Mention ICR Work With Parent Company? No

Career Charts Used? Yes Manager's Reaction Positive

Coordinator's Reaction

G.E.Q.'s Administered? No For Which Jobs?

rned/Results

Company Summary Sheet Filled Out? Yes

Jobs Were Identified as Feasible? SSA

They Feasible for Students Now? No Later? Yes

e Location Accessible? For Wrentham Students

Was The Manager's Willingness to Cooperate?

1 2 3 4 5 6 7

Was The Manager's Willingness to Redesign The Work?

1 2 3 4 5 6 7

al Comments

inator

COMPANY DATA SHEET

Name of Company: Arco

Location: Foxboro

Is company accessible to students? yes

Name of local contact(s); include titles:
Dennis

Jobs considered for placement:
Service Station Att.

Career Options:
—

Task Outlines:

Those used in negotiations:
S S A

Those needed:
—

New ones delineated from existent TO's:
Marked in original

New ones delineated without TO's:

What factors related to positive job adjustment has the employer indicated to be most critical (through interview and/or GEQ)?

Check Most Critical

1. Grooming
2. Transportation
3. Self Concept
4. Interpersonal Skills
✓ 5. Independent Functioning
✓ 6. Decision Making
✓ 7. Communication
8. Physical/Manual Skills
9. Work Habits
10. Personal Finances
11. Leisure Time
12. Friends and Relatives

COMPANY DATA SHEET
Page 2

General work aspects (hours, pay, etc.):

—

Students considered:

Rick Thompson

Students placed:

—

Company problems:

No openings

Willingness of company to cooperate (circle one):

1 2 3 4 5 6 [✓ 7]

Openess to redesign of work (circle one):

1 2 3 4 5 6 7 N. A

Comments:

LIST OF NEEDS

Name of Student (Preassessment Sheet)

Placement

Prevocational Preparation - Lessons, Counseling

Instruction While in Placement

Follow-Up - GEQ, Assessment Tools

Comments:

Subject Area:

Clients:

Cluster

Occupations

Activities/Rationale

Materials/Strategies

Outcomes/Evaluation

APPENDIX L

Reports from Ms. Ann Bryant, Physical Therapist and Richard Lee, Special Needs Co-Op Coordinator, Minuteman Regional Vocational Technical School

THE OCCUPATIONAL THERAPIST AND SPECIAL NEEDS WORK EXPERIENCE PROGRAMS IN A VOCATIONAL-TECHNICAL SCHOOL

Occupational Therapists or O.T.'s, are beginning to evaluate, consult, and treat as members of ongoing school programs to enhance the education for children and adolescents with a variety of handicapping conditions. O.T.'s work with students who are unable to perform the motor tasks required in their work due to the lack of fine motor and/or gross motor coordination, inadequate muscle strength, physical dysfunction due to cerebral palsy, congenital deformities or injuries, anxiety and lack of confidence due to their physical handicaps. The occupational therapist endeavors to implement a program designed to build upon the student's strengths, and to assist the student in becoming an active participant in his/her education by teaching problem solving techniques. The aim is to connect the student with his/her unique abilities to an activity program that will enhance emotional and physical development.

O.T.'s Role at Minuteman Regional-Vocational High School

The above description encompasses the general goals of the occupational therapist in the school system. However, a more definitive statement of the O.T.'s role at Minuteman Vocational-Technical High School follows. The first task of the O.T. is to evaluate, to determine (a) the weaknesses that hinder a student from the learning process, and (b) the strengths that the adolescent exhibits, which would make him/her employable upon graduation.

This evaluation process takes place in the LEA at the Junior High School level. Depending on the student's particular disability, the appropriate academic special education staff member accompanies the occupational therapist. The student is usually observed in the resource room, and in the industrial arts class, whether it be woodworking, electrical, or home economics. Criteria noted during the observation are such considerations as: self-management skills, level of instruction, attention to tasks, and appropriate judgement in both working and social situations. Quality of the work and speed are noted in relation to what is expected of the other students in the particular shop as well as what is expected at Minuteman. Teachers also keep in mind whether at the end of training at Minuteman, this person will be employable. It is sometimes found that a student may need another year of pre-vocational training, especially in the areas of: work habits, social and work judgement, and an awareness of career choices. At the same point in the observation the O.T. will talk with the student. Upon introduction of the interviewers, the student usually begins talking of Minuteman. This discussion is quite important to assess the student's level of maturity, thought sequencing, and realistic view of his/her disability. The student is usually asked to describe, in detail, what project he/she is working on in industrial arts class, the names of tools and reasons why it is done a certain way. There is also much discussion with the resource room teacher as to the student's academic achievements, peer relations, and student/teacher relationships. If needed, there is discussion with the shop teacher. With this information a decision is made as to whether or not a student is appropriate for a regional vocational technical school environment. When a special education student is enrolled at Minuteman, it is often deemed necessary that the O.T.R. be written into the educational plan. These services vary for individual students. In some instances it is a purely medically oriented concern for which the O.T. is trained. Hereafter the O.T.'s role will be addressed in the first person, reflecting the direct experiences of the author.

Direct Student Services

The area that takes up most of the time in the O.T.'s job is direct service to students in the shops. The O.T. informs the vocational teacher that a student is entering, giving an assessment on the student as it pertains to that particular shop. I work quite closely with shop teachers as well as students, whether it be a checkout on equipment for safety, or task analysis, to better enable the student to do the job. It is usually the student who can determine what is needed so he/she can perform in a more productive way. In order for me to determine the needs of a student in the shops, I must have knowledge of the shops, student's abilities and interests, job categories, and finally the job market now, and when that student is ready for employment. Usually, educable mentally retarded (EMR), visually impaired, physically handicapped, and learning disabled students can do certain tasks of a job, but may not be able to do the complete job. For example, a student may be taught how to take inventory - item description, quantity, and price. However, there may be a breakdown in generalizing information so that student only takes inventory of the stock on one shelf, and not the other even though it contains the same items. Furthermore, the student may or may not realize that part of the same job is to replenish the shelves or report damaged stock. As a support person to that student, I work closely with the student in detail operations of the work. It is also quite possible that a particular vocational area of a student's choice is not appropriate, in which case staff members look at alternatives. In this situation the student's input is invaluable, because the staff is dealing with both the learner's interest and abilities. In working with a student with particular handicaps, I feel the necessity to openly discuss abilities and weaknesses in order to help students realistically acknowledge their employment limitations. Consulting with teachers on how to manage special needs students is usually part of the process as well. I find that a description on how I have found it best to work with a student is appreciated by staff. We discuss expectations for that student, learning style, and chances of employability. In some instances it has been advantageous to have the shop teacher, the student, and myself sit down and discuss the handicap. The student often feels more comfortable for having met the teacher, having the teacher understand his/her limitations, and most importantly, having the student hear for himself that the teacher is interested in helping that student learn. My goal in this type of encounter is for the student to learn to identify his/her handicap to someone else, and to talk about the necessary compromises or modifications that he/she may need. This applies to almost any student, whether he/she is visually impaired or mentally retarded and "has trouble understanding things the first time around." When the student is employed it is probable that he/she may have to explain their handicap to co-workers, etc.

Resource Review

It is imperative that I continually update my information on requirements in the vocational areas at Minuteman, as well as in the job market. This entails talking with the vocational staff, glancing through text books used in related theory, and reviewing placements on co-op jobs (e.g., type of work, business locations, etc.). If it is possible, I try to ascertain whether the employer feels these students have been properly trained, and is pleased with their work. This activity is carried out in regard to both general level students and special needs students.

The O.T. Role and CAM

During the past year, I have had the opportunity to work with the Institute for Career Research, Career Accessibility Model Project (CAM). On October 14, 1978, a workshop was held with ICR and Minuteman staff to better determine, and therefore more efficiently utilize the project's materials through role definition, and redefinition of Minuteman staff. Since this workshop the occupational therapist's role has taken on an added dimension. I became involved in placement, but more importantly got involved in on-the-job follow-up. Mr. Richard Lee, a resource room teacher of EMR students, was the main contact person from Minuteman to employers after the initial contact by ICR. I occasionally participated in this particular process. However, when a student was to be placed, Mr. Lee and I often discussed possibilities on the type of job, the ability level of the job, and the particular student's interests. I have carefully reviewed the job options identified and developed in the generic job development phase of CAM and paid close attention to the duties and responsibilities as they were listed. I have learned from the breakdown of duties and responsibilities how important it is for the employer to be aware of the job tasks that the student is capable of performing. Employers sometimes believe that special education students are lazy or uninterested in the job tasks that are to be done. For example: A student is told that his job is to fill the trays with cake and make sure it is full during the cafeteria serving hours. This task is understood by the student, and the student does fill the trays with cake. The supervisor returns only to find cake crumbs all over the trays, table top and floor, and gets angry because the student didn't clean up as he went along. The student's retort is usually

"But you didn't tell me to clean the crumbs, only to fill the trays." This is indicative of two things: the supervisor is angry because the job was not done properly, and the supervisor doesn't feel that he should have to voice such "a common sense fact." The student, on the other hand, is quite aware of the supervisor's anger, and may or may not be knowledgeable of why, but only that he did something wrong. The student who may have encountered a number of "failure situations" will have less confidence at attempting a new one. Meanwhile, the employer having a "failure situation" may be reluctant to have special needs students as employees. This situation I have just described is not uncommon, and happens for a number of reasons. The O.T. would be a liaison in dealing with attitudes of employers. The job options represent a solid base with which to start. They are usually brought to interviews for discussion with employers on their particular job site structure, and finally in discussion of certain Minuteman students filling a job opening. However, prior to talking with employers, Minuteman staff reviewed the job options and duties for that particular job site. This gave us a sense of the job before the interview to better enable a proper selection of students for a particular job opening. For me, these ICR materials have been quite valuable.

I used the job options in assisting our students in integrating into our vocational shops. I check the tasks that are done in our shops against those in the job descriptions. These job options were then helpful to me in discussing job opportunities with vocational staff when discussing certain students. I will sometimes question Minuteman staff to determine minimal competency within the school setting. It is also a means to facilitate discussion of expectations, attitudes toward special needs students, and to know exactly what tasks these students are capable of performing. The student is an integral part of this process in that I need to know the student expectations of a career, interests, dislikes, and maturity level to know whether they can handle themselves in a job situation.

Overview or Summary

The CAM data would be a resource to the staff of any school involved in job placement. They present an opportunity for the staff to work with consenting employers in placing special needs students, but more importantly, contribute to successful placements, thus reducing failure experiences on the part of both student and employer. In summary, the occupational therapist evaluates and treats. In a time of change in the professional field itself, O.T.'s are reaching out to new experiences. With training in task or activity analysis, O.T.'s do have a viable role, enabling them to use this expertise in effective job placement of special needs students. The CAM data enhance not only job placement but an awareness of the capabilities of special needs students. The research material is readily understood by the lay person, and provides a structure for introducing employment of handicapped persons.

Comments Submitted by Dick Lee, Special Needs Co-Op Coordinator
Minuteman Regional Vocational Technical School

Appropriateness of particular job setting for EMR's

What is an EMR student? Clearly we all recognize the very serious nature of labeling as such. Of those citizens classified as "retarded," surely that subset designated as EMR is the most difficult to define. Consequently, I have numerous reservations about making any broad-based generalizations on the suitability of a given job description for such an inadequately defined population. Judgements, nonetheless, are called for, so suffice it to say that mine will be predicated upon my perception of the "average" EMR level student. There will, of course, be exceptions in every instance.

Employer willingness to hire

It goes without saying that employers will be willing to hire those individuals who can do the job. Whether or not a person is classified in school as "EMR" is of secondary importance.

In those instances when a company is willing to adjust a particular job description to the so-called characteristics of a "non-normative" population, I applaud their intentions. The realities of the actual placement process, however, go far beyond the limits of an "in theory" agreement to hire from a particular population. These considerations, at a given point in time, would include: (1) availability of openings; (2) availability of EMR level students; (3) availability of school personnel to effect placement; (4) transportation factors; (5) additional job modifications beyond the altered description; and (6) local supervisor attitudes regardless of company dictates. These considerations exist irrespective of a company's commitment to alter job descriptions. On this basis I would submit that a commitment, as such, is only a footstep in the actual placement process.

Attitudinal problems on the part of co-workers

Generally speaking, if a job candidate's behavior is so non-normative so as to elicit a negative response on the part of co-workers, I would have serious reservations about placing that individual in the job. It is encumbent upon special education to work with the student so as to minimize the possibility of any behavior that might jeopardize his relationship with co-workers. It is not unreasonable to expect EMR level students to understand that if they act differently, people will treat them differently. In a case where employees might regard an EMR co-worker as "a little slow" and yet respect that person as a competent employee, I would not regard such a tendency as an attitudinal problem.

Reasonability of expectations on schools

It is reasonable to expect schools, committed to the preparation of EMR students for jobs, to provide training for any position for which those students might be capable - providing, of course, such positions exist in the community.

Special training resources for EMR's

Ideally, a significant portion of job training should take place in general level vocational school settings capable of addressing a broad range of competency levels. A special educator should be available for support to both the student and the vocational instructor in the development of realistic learning objectives and academic modifications. Under such circumstances it can generally be regarded as axiomatic that a student who can still not function in a relatively self sufficient capacity in a general level vocational class cannot function independently on the job.

Job appropriateness for school/industry cooperation

Any job appropriate for EMR level students in business or industry should serve as appropriate grounds for cooperation between these entities and the schools.

School policies

Policies pertaining to job preparation and placement of EMR level students, of course, vary from school to school. I would take the term "policies" in this particular question to mean those general guidelines that may have bearing upon decision-making as it applies to specific programs. The degree to which these policies might require modification clearly depends upon the extent to which they reflect certain assumptions.

Modifications in school policies will not be necessary if they reflect commitments to the ideas that:

1. EMR level students are capable of occupational self-sufficiency.
2. This self-sufficiency is best attained through an educational program involving "mainstreaming."*
3. Flexibility in establishing training programs is essential to meeting the needs of individual students and the demands of industry.
4. Effective job placement and follow-up are critical to a successful vocational program.

*Inherent in this process is the need for adequately trained support personnel.

General comments

The variables that come into play when actually effecting a job placement are many. Adequate cooperation among resource staff, vocational staff, administration, parent, industry and, of course, the student in question is critical to successful placement. It is absolutely essential that the schools commit themselves to the hiring of full-time placement personnel for special needs students. If ultimate responsibility for this process becomes disseminated among too many individuals, because it is everyone's responsibility, it is no one persons responsibility, and the process can suffer. Only an individual with final responsibility for placement can adequately bring all the variables at play into a coordinated effort toward placement. This is a full-time job, and needs to be recognized as such by school administrators and committees.

APPENDIX M

OPTIONS 1-2-3
Cam Newsletters

OPTIONS

VOL. I No. 1 FALL 1977

The Career Accessibility Model: A Perspective

The Institute for Career Research project, A Career Accessibility Model, funded by the Bureau of Education for the Handicapped, is the result of a number of research themes and expertise converging on what we hypothesize is a systematic answer to increasing career success for special persons through school and industry cooperation. Our background in functional job analysis, task analysis from an educational perspective, systems approach instruction, cooperative education and change agent strategies have culminated in what we believe to be a fresh and practical scheme for the delivery of career education to special populations. Moreover, our commitment and enthusiasm in this research is being shared by both business and school people alike. The resulting potential of this combination of factors is exceedingly great, providing an environment of hope in this important area.

The Career Accessibility Model Project is designed to increase career options for special needs individuals through a process of job restructuring with employers, competency based mainstreamed instruction and proactive placement and follow-up activities. The model is a systems approach which enables students to enter at any point and receive appropriate career information, instruction, and/or placement.

The process utilizes a task analysis base of 122 occupations and 40,000 performance objectives. The target population for purposes of this research are Educable Mentally Retarded students in the occupations clustered under Marketing and Distribution activities, however, the process is potentially appropriate for other populations and other job clusters. To date 38 new career options have been developed in ten companies.

Pilot testing is being conducted in six different school settings in Massachusetts and New Jersey. These sites represent shared time vocational, full-time vocational, comprehensive city, comprehensive regional and small local schools. The emphasis is on adapting the model to a variety of school situations. Teachers instructional materials guides provide the necessary tools for conducting curriculum activities. Students receive instruction centered around actual employment opportunities which have been developed in the job generation phase. Placement is made when the individual is prepared for the entry point of the new career option. A cooperative education component insures a smooth transition from school to work. Proactive follow-up activities enhance the potential for career growth once on the job.

Evaluation of the project will be in the areas of the student's self image as a worker, attitude toward work, attainment of general employability skills and competence in performing employment tasks, as well as attitudinal barriers inhibiting the employment of handicapped persons. Data collected on systemic changes and impact on the communication between school and work will be synthesized into an implementation manual.

The project represents a timely piece of work which will assist both schools and business to assure the affirmative action called for in section 504 of the Rehabilitation Act and the equal opportunity to education envisioned in P.L. 94-142.

BUSINESS CONTACTS – PHASE I

Randy Smith
Brigham's

Arthur Veves
Burger King

Ramsey Torruella
Marriott

Neil Falby
Marshall's

Clinton McCann
McDonald's

Ron Partridge
S. D. Warren

Ed Cooney
Stop and Shop

Houston Ingram
Texaco

Pat Martin
Woolworth's

Steve Sonis
Zayre's

John Sullivan
Zayre's (Hanover)

Task Force Members

Dan Malia
Newton Public Schools
Newton, MA

Ronald Partridge
S. D. Warren Co.
Boston, MA

Mary McLean
Mass. Rehab. Commission
Boston, MA

Patricia Linari
Holbrook Public Schools
Holbrook, MA

Ramberto Tourella
Marriott Motor Hotel
Newton, MA

Mary Scorzelli
Specialist in Retardation
Newton, MA

Richard Lee
Minuteman Vocational Technical School
Lexington, MA

Task Force Active in Year One

A significant component of our first year activities was the development of an active task force comprised of educators, business representatives and specialists in rehabilitation and mental retardation. This task force provided project staff with considerable input as the CAM was being developed. They were actively involved in assisting us with:

1. Gaining a meaningful perspective on our target population of educable mentally retarded persons.
2. Developing viable strategies for interviewing with business and industry.
3. Providing critiques of the job options as they were developed. Each task force member reviewed the options and made comments, from their personal expertise perspective, on factors which would affect job performance, instruction and employability skills.

Special note should be made of the importance which we placed on social/interpersonal skills as we worked with business and industry. This activity, based on extensive review of the literature, was pursued because of the importance of developing with EMR students, behaviors which dealt not only with job skills but also the critical aspects of interpersonal relationships and personal development. This two-pronged approach impacting on instructional strategies will provide dimensions to student development which should significantly enhance the employability prospects of our demonstration site populations during the current implementation phase.

Summer Writers' Conference Held

In late summer (August 30-September 2), ICR held a four day conference for teams of teachers and coordinators from three of the four Massachusetts school systems with which we will be working this year. In all, eight teachers and three coordinators represented Holbrook High School, King Philip Regional High School and Newton North High School Conference participants were:

Holbrook	
Bob Stirling	Coordinator
Ursula Bernard	English
Rich Little	Math
King Philip	
Helen Brennan	Coordinator
Jackie Hansen	Resource Room
Ira Cass	Small Engines
Judy Kamon	Reading
Newton	
Bob Chalmers	Coordinator
Donna Haydon	Resource Room
Libby Resnick	Business
Bill O'Neil	Home Economics

Minuteman Regional in Lexington had other commitments during the workshop period but ICR will work with them early in the school year. Union County and Monmouth County in New Jersey will also participate in an ICR conference to be held in early October.

The conference provided an opportunity for teachers and coordinators to compare notes on activities in their respective schools, as well as to plan instructional programs for special needs students who will be placed in co-op/work study programs this year. Emphasis was placed on using data derived from ICR's first year of research with employers to develop individual educational plans based on the students' interests.

ICR will continue to work with these teams to assist in improving the quality of the program's offerings in each school.

We also hope to bring the participants together again in the future to evaluate mutual experiences.

The material in this publication was prepared pursuant to Grant #G00705047 with the United States Office of Education Department of Health, Education and Welfare. Points of view or opinions do not necessarily represent USOE policies or positions.

This project is being conducted in compliance with the following civil rights regulations:

"No person in the United States shall on the ground of race, color, or national origin, be excluded from participation or be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

Second Year Goals Established

During the 1977-78 school year ICR will work closely with six school systems (four Massachusetts, two New Jersey) (see box) in order to test out a number of features of its Career Access Model. ICR expects to be able to improve the special education programs in these schools by helping in the following ways:

Building and maintaining a network of business contacts in the local community.

Increasing the number of co-op job options available to special needs students.

Delineating a file of job descriptions for special needs students.

Improving career guidance for special needs students.

Assessing the individual needs of special needs students.

Developing appropriate individualized educational plans.

Developing an understanding of roles among all members of the team of workshop participants.

Maintaining communication among and between program participants and other members of the faculty.

Establishing business/education advisory committees either permanently or on an ad hoc basis.

Involving parents of special needs students.

Evaluating the co-op/work study program for special needs students.

Besides these school-related activities, ICR will address some general activities such as:

Developing new data

Increasing business/industry contacts

Disseminating information about work

Implementing a comprehensive evaluation design

Meeting with advisory committees periodically

NEXT ISSUE:

National Advisory Comments on the CAM Project

From time to time in this space ICR will feature activities which bring together the essence of our work in one or more of these areas.

Our staff looks forward to a year in which much is learned and many are served.

Schools in Which ICR Will Test
The Career Access Model

1. Holbrook High School, Holbrook, Massachusetts
2. King Philip Regional School, Wrentham, Massachusetts
3. Minuteman Regional Vocational/Technical High School, Lexington, Massachusetts
4. Newton North High School, Newton, Massachusetts
5. Union County Vocational/Technical School, Scotch Plains, New Jersey
6. Monmouth County Vocational School, Freehold, New Jersey

Expansion of Data Base Expected

In order to maximize and improve the Phase I developmental process of the CAM Model, the second year will see an expansion of the project's interaction with additional business and industry representatives. This approach will serve a two-fold function:

1. It will provide us with an opportunity to implement an evolving model after having had one year's experience in development.
2. In addition, by contacting new businesses, we will automatically expand, especially in our demonstration site, the number of contacts and potential options for our data bank.
3. Concurrent with ICR's expansion of business contacts, there will be a concerted effort between project staff and work study coordinators to effect, at the local level, the job generation phase of the model. This will essentially impact on the project's concern to have local districts become increasingly less reliant on singular 3rd party intervention and to become more self-reliant in the administration of the CAM Model.

Business Education Interaction: A Process

It would be a gross understatement were we to simply say that the Project staff experienced cooperation from the business contacts with whom we worked. During Phase I of the CAM Project, staff members were preoccupied with developing working relationships with our initial companies. These relationships had as a basis of development, the principle that if education and business confronted mutually sought after goals, (i.e. the maximization of human potential) then meaningful dialogue could be opened. And it was on this very premise that the development of an interaction was started. We initially decided on the Marketing and Distribution Cluster because of the variety of jobs which this cluster contains. Through the guidance of Mr. William Chouinard, Executive Director of the Greater Boston Chamber of Commerce we developed a list of 15 companies in the Greater Boston Area who might provide us with cooperation. Subsequently this list was refined to ten companies and at this point our interaction began.

Essentially there were six steps to the process of developing our relationship with business:

1. **Orientation**: During this phase, the dimensions of the project were laid out and the potential benefits which companies could accrue from their involvement were explicated. What occurred during these sessions was a remarkable willingness on the part of business contacts to become involved and further to accept the responsibility of performing the tasks which the project staff had laid out.
2. **Data Review**: Each company contact was asked to review existing project data – specifically task outlines which had been developed for each of the companies' employees. In reviewing the data the contacts were asked to add and/or delete any tasks which were not relevant to the companies description of the position. (Once this was done, project staff compiled the results and compared the final task outlines with the project's computerized assessments of the relative attainability of each of the tasks in the company specific outline).
3. **Negotiations A**: With the new task outlines tailored to the ability levels of EMR's, project staff returned to the company to negotiate prospects for employment. The results of this negotiation were the identification of job options which reflected, in varying degrees, segments of jobs already in existence. While there was no attempt to request that a specific number of jobs be allocated for the project, we were able to get agreement that given no extraordinary economic or organizational constraints, persons trained in the job option would be considered for placement.

   Negotiations B: Another critical factor in the negotiations process was the completion, by the company contacts, of a General Employability Questionnaire. Suffice here to say that because we were seeking business inputs which would directly impact on curriculum designed for preparing students for placement on the job, we sought to include as many pertinent variables in our data collection as possible. This was in the hope that our data bank would reflect a more realistic picture of the world of work and therefore, more positively assist curriculum builders.

4. **Follow-Up**: In order to insure that we had elicited maximum data from each company, there was a follow-up meeting conducted with each company. At this session the company contact was given a complete set of data accumulated during Phase I. The document was reviewed with the company contact. We also completed a final questionnaire on each company. The information gathered provided the project with a formal set of data on each company and our contact; an analysis of issues related to management; and an indication of the company's willingness to continue interaction with the project. On this latter point it is encouraging to report that each of the contacts indicated a willingness to continue participation. In many instances the participation has already begun.

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THE CAREER ACCESSIBILITY MODEL – USOE GRANT NO. G00705047
John O. Post, Project Director – Vic Petzy, Project Manager

This newsletter represents the second in a series of reports on "The Career Accessibility Model", a project of The Institute for Career Research, funded by The Bureau of Education for the Handicapped.

We bring these reports to your attention in hopes of sharing with you what we feel to be an exciting and innovative approach for creating new career options for persons with special needs.

OPTIONS

DEVELOPING EMPLOYMENT OPPORTUNITIES FOR PEOPLE WITH SPECIAL NEEDS

lume 1 No. 2 Spring, 1978

THE CAREER ACCESSIBILITY MODEL

LOCAL JOB DEVELOPMENT ACTIVITIES

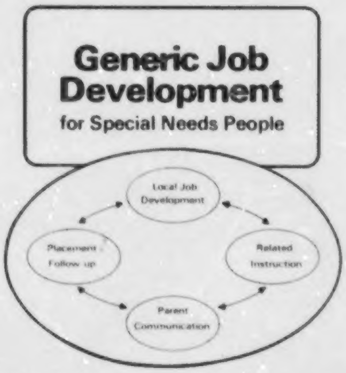
During the first six months of the 1977-1978 school year, BEH/CAM staff assisted school placement coordinators in developing job opportunities for students in their special education work experience programs. Since these programs are relatively new in both Massachusetts and New Jersey, much time was spent in (1) clarifying each coordinator's job development role relative to their other special education duties (e.g., teaching) and (2) establishing firm administration backing for job development. With these two objectives in place, coordinators began contacting managers in local businesses. These contacts included employers in stores, restaurants and service stations directly related to, or similar to, the organizations in which BEH/CAM staff carried out its generic job development activities in Phase I of the project (Brigham's, Burger King, Marriott, McDonald's, Stop and Shop, Texaco and Zayre's). School personnel have used job descriptions and career development charts developed in cooperation with personnel directors in the above named companies. In general, these materials have proved to be useful tools in emphasizing the capabilities of special needs students and identifying entry level jobs and alternative career patterns within each organization.

An additional tool, the General Employability Questionnaire, developed in the first year by BEH/CAM staff, has also proved helpful in obtaining employer perceptions of critical job adjustment factors in their work settings.

BEH/CAM staff assisted school personnel by securing endorsements for CAM activities from corporate and division level personnel directors in the above named businesses. Through phone calls and memos, these middle-management officials informed local managers of the program and indicated to them that coordinators in schools near the local businesses would soon be concontacting them. In some cases, personnel directors met directly with the placement coordinators to find out more about their programs and to assist in securing the involvement of their local managers.

Dick Lee, the Special Needs Co-Op Coordinator at Minuteman Regional Vocational Technical School in Lexington, Massachusetts, has commented on his job development experiences:

> "I have been using the Career Accessibility Model approach to the placement of Special Needs students over the past four months. While only still in the "employer-contact" phase of the process, I have been pleasantly surprised with several of its features.
>
> The background work with company middle-management clearly does have an impact on employers at the local level. Letters of introduction from regional offices coupled with foreknowledge on my part of job descriptions at a given store site do tend to enhance the employer-contact process. Local store managers are impressed with the fact some "homework" has been done, and, on this basis, do seem more receptive to the hiring of students. They also seem pleased that they will have some input into the student training process.
>
> My conclusions here are, of course, intuitive. It would be, indeed, premature to fully endorse this approach in its entirety at this time. Its value will be determined ultimately by the number of students effectively placed. I can say, however, that I am impressed with what I have seen thus far."



CAREER ACCESSIBILITY MODEL

THE CAREER ACCESSIBILITY MODEL AND THE LAW

Implementation of various components of the Career Accessibility Model for Special Need Individuals (CAM) fulfills several key provisions of recent federal legislation - PL 94-142, Education for all Handicapped Children Act, and the Vocational Rehabilitation Act of 1973, Section 504. Four of these concerns are addressed below:

1. Reasonable Accommodation of Handicapped Workers

Under Section 504, a business receiving federal assistance in the form of grants, loans or contracts is required to make "reasonable accommodations to the known physical or mental limitations of an otherwise qualified handicapped applicant or employee, unless the recipient can demonstrate that the accommodation would impose an undue hardship on the operation of its program."

The law specifically identifies "job restructuring" as a means to accommodating handicapped individuals. The generic job development phase of the Career Access Model (CAM) couples job redesign techniques with knowledge of the capabilities of special needs persons. In planned systematic interactions with key middle-management level officials, employment options within the abilities of the handicapped are identified and/or created.

Businesses seeking to comply with the federal regulations, or voluntarily initiating affirmative action programs benefit from the Career Access Model (CAM) in two ways. First, jobs which fit the capabilities of handicapped persons are clearly delineated, thus enhancing management's ability to make reasonable accommodations. Secondly, valuable information (e.g., job descriptions, career development charts, specific job adjustment factors) is generated for use by school systems and other agencies in programs which can assist handicapped persons in developing the minimum qualifications for obtaining and keeping jobs. As a result, management's training and supervisory provisions for the handicapped tend toward normalcy.

2. Least Restrictive Environment

One of the fundamental principles underlying PL 94-142 is that every handicapped individual should have the opportunity to learn in an environment which provides the least restriction on his or her ability to grow and develop. The law recognizes a continuum of learning situations into which an individual student might be placed after a thorough assessment by the school.

The goal of the Career Access Model (CAM) is to assist school personnel in identifying appropriate work experience placements for special needs students. To the extent that these placements are in stable businesses where corporate commitments have been made, where local managers understand and are sensitive to individual student needs, and where opportunities for career advancements are plentiful, then a student's work experience will be occurring in a "least restrictive environment." The organizations with which the Career Access Model (CAM) staff has worked, while presently few in number, meet these criteria.

3. Individual Education Plans (IEP)

PL-94-142 requires that each school establish individual learning plans for every special needs student. Data derived from business, as part of the job development phases of the Career Access Model (CAM) provides readily useful resources for stated goals and objectives, defining cooperative learning experiences, and incorporating evaluation components of the IEP. Job descriptions, career development charts, and employers' perceptions of job adjustment needs can be used to construct relevant curriculum for special needs students who are in a work experience program.

4. Parental Communication

The intent of PL 94-142 is to create opportunities for parents to participate in the evaluation of their children's special education needs and to contribute to the development and follow-up of their individual education plan. Unfortunately, most school systems have a limited history of parental involvement in these processes and much remains to be done in regard to clarifying the roles of all participants.

The Career Access Model provides a number of methods (e.g., a Q-Sort methodology based on employer comments on work adjustment needs) by which parents and educators may work together to identify and act upon specific student needs.

FEEDBACK FROM THE ADVISORY COMMITTEE

In January of 1978 the Career Accessibility Model for Special Needs Individuals (CAM) project staff solicited responses from our National Advisory Committee relative to the progress of the project and its potential as a model for secondary level career education for handicapped persons. As of our deadline date for this issue of OPTIONS we have received two enlightening responses from Dr. Oliver P. Kolstoe Chairman, Department of Mental Retardation, College of Education, Division of Special Education and Rehabilitation of the University of Northern Colorado and Dr. Robert A. Stodden, Coordinator, Career/Vocational Programs for the Handicapped, School of Education, Division of Special Education & Rehabilitation of Boston College. Other responses will appear in future issues.

Addressing the Generic Job Development component of the model, Dr. Kolstoe writes:

> "Generic Job Development seems to be a viable approach only if a corporate headquarters is accessible to the job developer. Furthermore, if the same

> approach were to be used by school personnel rather than by Institute personnel, there is no way to know what kind of reception they might get. A field test would seem to be in order. The procedure appears to be promising, but it needs further validation."

He continues commenting on the Local Job Development and its relation to the corporate level function.

> "Local job development certainly seems to be aided by the Generic approach since it is supported by the authority of the corporate headquarters. This is particularly true when job descriptions developed at the generic level accompany the local job developer. The career development charts also appear to have great utility for the same reason."

Dr. Stodden advises:

> "A critical variable in the replication and dissemination of your model in the schools will be appropriately prepared personnel to carry through and adapt the model to specific settings. Our proposed training program (Career/Vocational Specialist) seems to interface very well with the emerging subcomponents of your project."

In response to the most important aspects of the CAM model, Dr. Kolstoe states:

> "I am particularly sold on the Q-Sort technique as a basis for identifying discrepancies between parent, instructor and employer perceptions of the student's strengths and weaknesses. Validation through job performance is hard to argue with, but we should be prepared to find that discrepancies that appear formidable during training may disappear as adjustments are made by the worker, the supervisor and in the tasks when the employee actually gets on the job."

Dr. Stodden emphasizes:

> "The most important aspect of the CAM project is the systematic procedural model, which can readily accommodate subcomponents as needed, developed for replication within the secondary school setting. The subcomponents of parent and community cooperation, career/vocational evaluation, instruction, and placement interface well with roles presently mandated for all secondary schools serving the handicapped."

In summarizing the potential of CAM, Dr. Kolstoe advises:

> "The entire model seems to me to have a great deal of potential as a model for career education of handicapped people at this age and level of skill. However, the follow-up work needs further analysis to see how much flexibility actually exists in fitting the worker, supervisor, and job to each other."

Dr. Stodden concurs with that point of view stating:

> "The CAM project is a very thorough, systematic model with the prime function of increasing career options for the handicapped adolescent. The various subcomponents formulated to facilitate the increasing of career options are all critical variables contributing to successful career/vocational development. The consistent maintenance, application, and allowance for flexibility of the prepared job descriptions, career development charts and GEQ reports will assist with many problems encountered during the school to society transitions.

A MEETING WITH HOLBROOK PARENTS

On December 1, 1977 staff members Vic Petzy, Project Coordinator and Dick Etter, Research Associate, made a presentation to Holbrook parents of special needs students. They were invited by Mrs. Patricia Linari, Director of Special Education for the Holbrook School System and the Holbrook Parents Association to present the "Career Accessibility Model for Special Needs Individuals" (CAM) and other relevant material being developed in the area of special education and parent communication.

After an up-date of the first year of activity of the Career Access Model (CAM) project, the parents were asked to respond to the newly revised General Employability Questionnaire (GEQ) just as many employers had already done. Once members of the audience had dealt on a personal level with the issues related to job adjustment and social and occupational competencies explicit in the questionnaire, information from the group was tabulated and used as the back drop for an excellent discussion. The responses of the group were contrasted with those of employers actively involved in hiring special needs persons. Parents then discussed with Institute staff and school personnel the importance of the project and particular relevance to their own children.

In the second half of the presentation Project staff introduced a method for increasing parent/teacher communication. A sorting technique is used to compare the parents' perceptions of the child's readiness for the world of work with that of the teacher or coordinator. Through this process several specific competencies may be targeted for priority attention while parent and teacher are provided with an excellent vehicle through which to develop a deeper understanding of the child's behavior. The technique was demonstrated through the use of a case study prepared by Mrs. Linari. Robert Sterling, Co-op Placement Coordinator and Mrs. Linari actually performed the technique on a special needs child they both knew but who remained anonymous. Their perceptions of the child were compared, target concerns identified, and discussion of differences were moderated with the group. Parents were able to interact with the two participants and began to see more clearly the difficulties inherent in communications of this nature.

Lengthy discussions followed the formal one and one-half hour presentation and overwhelming support was voiced by parents for the project and its goals.

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THE MODEL

Generic Job Development Process

This component of the Career Access Model (CAM) provides the basic data which fuels the model. This phase involves a series of interactions (usually 3 sessions) between researchers (or in some rare cases school personnel directly) and key personnel representatives in businesses and industries with large geographical focus (e.g. Zayre's, Brigham's, Texaco). The company contacts, usually at the division or corporation headquarters level, must have the ability to responsibly articulate general company hiring policies as well as detail specific job requirements in local business operations. The power of this approach is that company information and influence can be generalized from high levels of the organization to numerous outlets proximal to school districts implementing cooperative education programs. Viewed in a pragmatic way, this means that one key contact at Brigham's, who identifies two possible career options in his store, has created at least ten possibilities for placement in Lexington, where there are five Brigham's stores, and six in Newton, where there are three stores.

The following is a list of activities which occur during the interaction with business representatives in the generic job development subcomponent of CAM.

- Presentation of overall education needs of handicapped students.
- Discussion of company policies and operations.
- Consideration of economic and legal aspects related to hiring the handicapped.
- Description of company job requirements.
- Determination of job adjustment factors specific to the company.
- Analysis of the relationship between the capabilities of special needs individuals and normal company requirements.
- Application of job redesign procedures, i.e., breaking down of job descriptions into components, rewriting to fit special needs.
- Negotiation of feasible employment possibilities via cooperative education programs.
- Summarization of all new data - job descriptions appropriate for specific handicapped groups, career development charts specific to individual companies, analysis of job adjustment information specific to companies.
- Obtaining commitments from personnel representatives, (a) to urge subordinates within the organization to work with school systems, and/or (b) to meet with school personnel in local business sites.

Following these activities, two additional processes must occur.

- Analysis and evaluation of new data by a task force consisting of experts in special education as well as business representatives. Here job descriptions are coded relative to levels of learning difficulties.
- Dissemination of data to local educational agencies for use in special education cooperative programs.

In order to link local school systems with the business organizations enlisted in the generic job development phase of the Career Access Model (CAM), numerous school personnel must be involved from the Director of Special Education to individual classroom teachers. However, the special educator involved in cooperative education and placement is most influenced by CAM and is viewed here as the focal point for utilization of data delivered from employers. These persons hold different titles in different schools and for the purpose of this project they are identified as placement coordinators.

Local Job Development

The placement coordinator's role in developing job options for special needs students is enhanced by the Career Access Model (CAM) in the following ways:

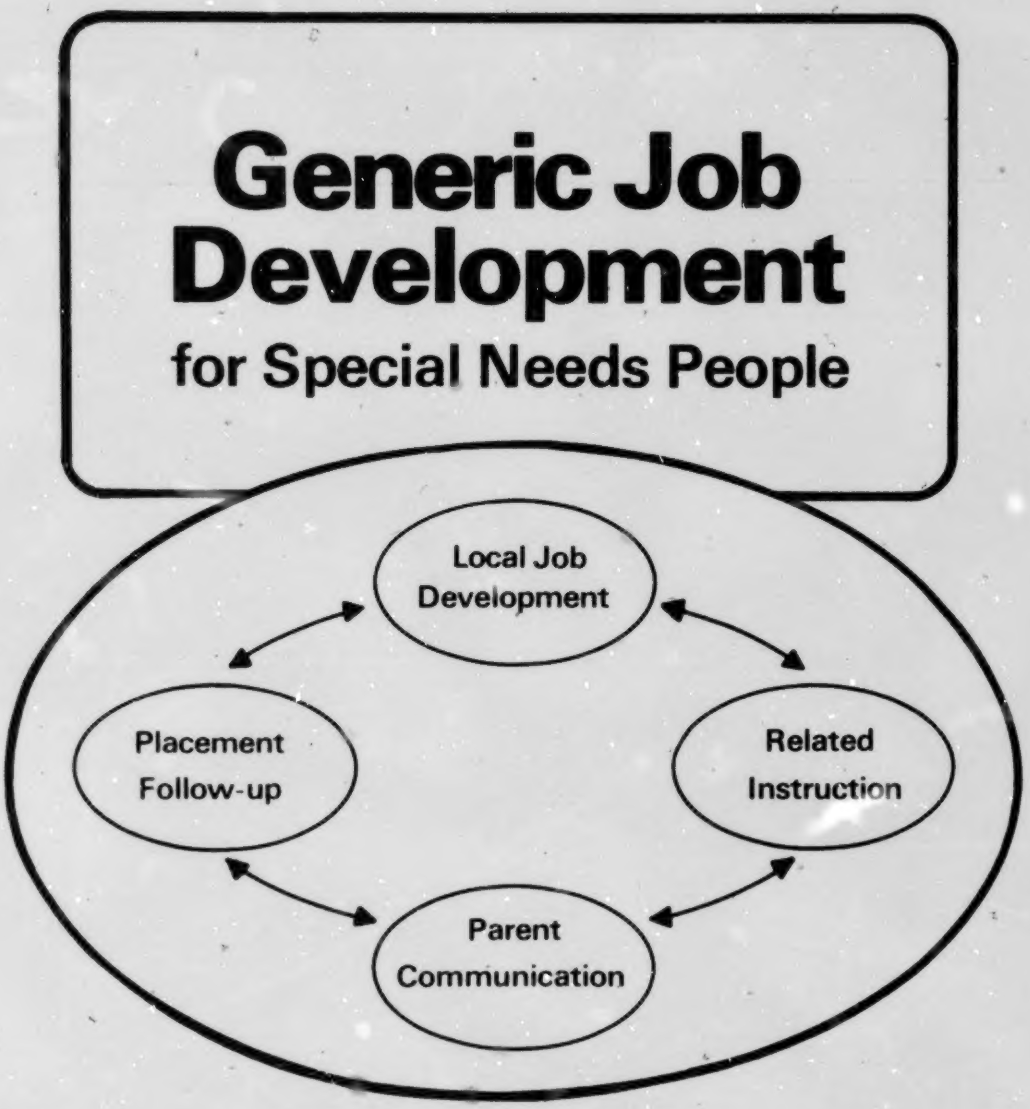
Contacts: The coordinator receives the names of local managers who have hiring responsibilities in the original companies (i.e., in the companies identified originally in the generic job development phase) and who have been urged by their supervisors to meet with school personnel in their communities.

Job Descriptions: During the meetings with local business managers, the task outlines developed in the original research are used to direct the discussion toward tasks which are attainable by special needs students and which exist in the respective companies. The employer is asked to verify the possibility of job placements similar to the job descriptions.

Career Development Charts: The charts also focus discussion between the local employer and the coordinator. They enable the employer to explain more easily the relationships between jobs in his business. They also facilitate discussion of the work redesign (whether specific tasks or environmental modifications) that must take place.

General Employability Questionnaire (GEQ): The GEQ is an instrument designed to capture the perceptions of local managers toward the job adjustment factors necessary to maintain employment within their businesses. The employer is asked to fill out a questionnaire for each job option that is identified. This activity provides

THE CAREER ACCESSIBILITY MODEL


Generic Job Development
for Special Needs People
Local Job Development
Related Instruction
Parent Communication
Placement Follow-up

This diagram symbolizes the latest conceptualization of CAM. Activities located in the rectangular box reflect the researchers' role in establishing key business contacts, generating relevant work experience information from them, and assisting in linking them to school programs. The four components in the lower portion of the model represent several goals of a work experience program, which are affected by the CAM approach.

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the local manager with direct input to the career education program.

Organization of Data: A short form summarizing key information about each company is used to keep track of relevant information derived through this process. All possible options, career charts, and GEQ data is also filed for each company with which contact is made. Finally, the organization of files is enhanced by using the task force coding scheme in evaluating the career options.

Placement/Follow-Up

Placement: Materials derived from the local job development phase improve the process of matching students with placements that fit their individual interests and abilities. Job descriptions and career development charts are used to assist in assessing student needs.

The file of options provides a ready resource for finding appropriate possibilities and following up concerned business contacts.

The materials provide a systematic and structured format for decision-making on the part of the student, the parent, and the educator.

Finally, the job descriptions are used to specifically identify those responsibilities and duties which the student will have on a job in which he or she is ultimately placed. As a result, the student, educator, and employer have a clearer understanding of employment expectations. Actual placements are also filed for future reference.

Follow-Up: The process of follow-up evaluation of student placements is enhanced by the materials derived directly from the employers.

The job description agreed upon at the time of placement is used as a reference tool to monitor student progress and problems.

The GEQ factors identified as most critical are used as a focal point of discussion between coordinator and student, coordinator and employer, or student and coordinator.

Career charts are used to guide the student into job options that are attainable by him/her with growth and development in the work setting.

Instruction

Knowledge of the cognitive, affective, and psycho-motor requirements of work done by students in job placements is translated by school personnel into instruction. The coded job descriptions indicate levels of difficulty for each task and the GEQ provides work adjustment factors which should be stressed.

Thus, the job description and GEQ data help define the needs of the potential co-op student so that appropriate school resources (teachers, materials, etc.) can be marshalled to assist him/her in exploring different placement possibilities and learning skills vital to successful work adjustment and maintenance. Some special materials developed for CAM are implemented in this phase. After placement, the materials serve as guidelines for in-school instruction which supplements the work experiences.

Parental Involvement

In order to encourage parental involvement in the guidance, instruction, and preparation of students for career placements, the following processes are implemented.

- Use of the GEQ and a special Q-Sort methodology to diagnose parental perceptions of their children's social and occupational needs. The items in these instruments are derived from data supplied directly by employers. Follow-up discussions based on discrepancies between parental perceptions and those of educators and employers provide a medium for developing cooperative approaches to the needs of the student.
- Parents are presented with literature concerning specific suggestions on how they can assist in their child's preparation for work placement. These suggestions relate family situations to specific responsibilities and duties required in co-op options.
- In conferences with parents, job descriptions, career development charts, and GEQ data are used to enhance an understanding of specific employment opportunities and requirements.

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THE CAREER ACCESSIBILITY MODEL – USOE GRANT NO. G00705047
John O. Post, Project Director – Vic Petzy, Project Manager – Dick Etter, Research Associate

This is the third in a series of reports on "The Career Accessibility Model," a project of the Institute for Career Research, funded by the Bureau of Education for the Handicapped.

The current issue outlines a transition from a funded project toward delivery of services to schools, businesses, and human service agencies based on our findings - services which we hope to continue for the benefit of persons with special needs.

OPTIONS

DEVELOPING EMPLOYMENT OPPORTUNITIES FOR PEOPLE WITH SPECIAL NEEDS

lume 1 No. 3 Fall, 1978

THE CAREER ACCESSIBILITY MODEL

PAST, PRESENT AND FUTURE

Where We've Been

For the past two years (1976-1978) the Institute for Career Research (ICR) has administered a unique project funded by the Bureau of Education for the Handicapped (USOE) entitled "A Career Accessibility Model for Special Needs Persons." During this time we have worked directly with upper level managers in 10 large businesses toward the goal of identifying and creating job options for disabled (physically and mentally) persons. We have also worked with educators in six school districts in Massachusetts and New Jersey to determine the myriad ways in which work experience programs might best utilize the commitments and information derived directly from the business community.

This project has had as its principle goal the development of alternative ways to assist people with special needs in preparing, for and obtaining career options that meet their individual capabilities. The Career Accessibility Model (CAM), (depicted elsewhere in this issue), rests upon the dual assumption that people with special needs represent a wealth of as yet untapped human resources, and that their talents and skills can be unlocked through the collaboration of business and education. Within the CAM model are an extensive number of processes and materials which integrate the major concerns of programs intended to advance the career growth and development of special needs persons.

Where We're Going

Through our newsletter, OPTIONS, we have attempted to share the rich volume of knowledge which has emerged from our work. Recognizing the implications of our experiences for a wide range of professionals, we have included in our dissemination efforts, school systems, CETA agencies, rehabilitation centers, special education organizations, and concerned citizens.

Despite the formal completion of our present BEH project, ICR plans to continue work in the field of career education for the handicapped. Through our future publications we will continue to disseminate timely information based on our experiences. Those of our readers who wish to receive these updates in the future are kindly asked to inform us of your interest.

In This Issue

The main theme of this issue concerns the CAM project's second year activities. The articles on pages 5 and 6 summarize the many uses which school systems have found for the commitments and information derived and developed directly from the business community in year one. Job descriptions, career development charts, job adjustment data, reading materials, and communication tools were found to enhance the work of special needs work experience coordinators, teachers, administrators, guidance counselors, and occupational therapists. Examples of specific uses are detailed, demonstrating the programmatic changes which one might expect when employer based information is considered. In a separate article on p. 3, use of the CAM data for administrative purposes is further developed.

The article on "Key Issues in Work Experience Programs for Special Needs Students," (p. 2), does not exhaust all of the concerns in this area. However, those general program aspects which one might expect to cause the most difficulty are described.

Finally, the ongoing commitments of those businesses which have contributed to the CAM project from its initial days are highlighted in the article "Support from Business Continues," (p. 4). Our continuing belief is that the integration of job redesign principles into business operations, and the active participation of business leaders in the development of education programs will be absolutely necessary, if the dreams of maximum development and equal opportunity for people with special needs are to be realized.

KEY ISSUES IN WORK EXPERIENCE PROGRAMS FOR SPECIAL NEEDS STUDENTS

Work experience programs represent viable learning alternatives for many students with special needs. After two years of in-depth study of, and direct involvement with, special needs work experience programs in Massachusetts and New Jersey, our staff has identified several areas which are of common concern among school systems initiating this educational approach. Some key issues are discussed below.

Administrative Support

Support for special needs work experience programs must emanate from the highest administrative levels. Explicit school system policies should provide coordinators and teachers with the time, resources, and flexibility to develop suitable employment options, and to provide adequate preparation, guidance, and placement for special needs students.

Superintendents, directors of special education, and principals must also provide direct leadership in articulating work experience goals with the goals of other school programs, developing team work among staff members, and ensuring that continuous formative evaluation occurs within the program.

Full Time Coordinator

The most crucial factor in the success of special needs work experience appears to be the establishment of a full-time program coordinator. An extraordinary amount of time is absolutely necessary for the adequate performance of this role, which includes: (1) planning and implementing strategies for developing business contacts and dealing with negative employer attitudes; (2) analyzing work settings and accumulating relevant employment data; (3) matching student capabilities with available employment options and assisting students in the selection of appropriate work experiences; (4) coordinating related instruction in conjunction with other staff members; (5) arranging, supervising, and evaluating student placements.

Given the time demands of these and other tasks, a full-time coordinator for every 10 to 15 students does not appear unreasonable.

Program Organization

A planned, organized program provides both internal and external benefits. Careful documentation and storage of company contacts, job descriptions, career development charts, student profiles, and outcomes of prior placements, facilitates the overall process of matching students with work that fits their capabilities. An orderly, consistent process of interaction with employers provides a framework in which school personnel are perceived as "having done their homework."

The ability of coordinators to articulate clearly the true capabilities of special needs students, and the supportive nature of the school programs maximize the chances of gaining employer cooperation.

Relevancy of Methods and Materials

Methods and materials used in instruction and guidance of special needs students in regard to potential work experiences should be closely related to real options for students in the program. Data derived directly from work settings within a local community are useful in preparing staff persons who teach and counsel students directly. Class activities which utilize relevant methods and materials can stimulate student interest and understanding of career options which are available to them in their immediate community.

Parental Involvement

Providing parental involvement in the planning and implementation of special needs work experience programs not only meets legal requirements (e.g. PL94-142), but also adds an invaluable resource. Clarification of parents' roles, and clear specification of how they can contribute is absolutely necessary.

Numerous issues will surface when school systems initiate work experience programs for special needs students. Those discussed above will certainly be among the most prominent.

Vic Petzy

CEC PRESENTATION A SUCCESS

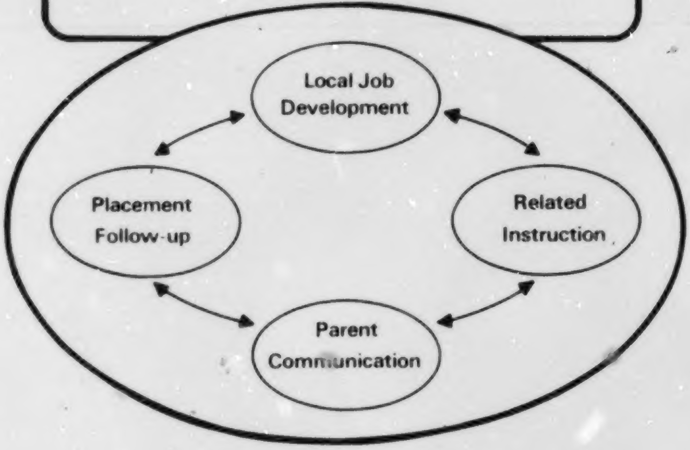
On May 5, 1978 our staff made a presentation of the "Career Accessibility Model" at the Council for Exceptional Children Convention held in Kansas City, Missouri. Participants at the presentation overwhelmingly reported (via a formal evaluation process conducted by the Division of Career Development) that the session was timely, informative, and relevant to their needs.

The positive feedback received at the CEC, as well as the numerous inquiries (over 100) we have received through the dissemination of OPTIONS, has reinforced our belief that issues raised in the development of CAM are far from resolution, and are in need of continued study and consideration by researchers and practitioners across the country.

THE CAREER ACCESSIBILITY MODEL

Generic Job Development

for Special Needs People



ON ADMINISTRATIVE USES

Administrative concerns in the area of operating special needs programs are similar to those concerns in operating any program - efficient use of staff, effective programming, quick access to information, effective communication processes, and accountability. The one important difference is that all these concerns are amplified. The Individual Education Plan (IEP) requires clear definition of goals, documented follow through, and periodic revision. Student-teacher/student-coordinator ratios are small, creating in-system pressure for careful accountability measures. Other pressures from parents and parent groups deeply concerned about the progress and future of their youngsters requires that administrators have ready access to student information in order to respond quickly and accurately to parental inquiries.

The Career Accessibility Model for Special Needs individuals provides a system to address each of these concerns. Effective programming and efficient use of staff can be enhanced through the use of job descriptions (task outlines) to identify specific instructional areas which are the responsibility of particular staff. For example, an Auto Mechanics shop teacher with a mainstreamed special needs student has as his primary concern the development of specific manipulative skills. The resource teacher for this same student will work with specific cognitive skills and the development of related skills such as preparation of credit slips. Areas of teacher responsibility are clearly defined by CAM materials and each teacher can call upon another for assistance and support.

Rapid access to student and program information is provided through a student file including a task outline for his/her program, a student summary sheet, company summary sheet, if the student is working, and various other student psychometric information. Frequent requests for information on student progress and long and short term goals can be very efficiently dealt with when this type of file exists. This greatly improves the effectiveness of communication with parents and colleagues.

Accounting for contributions of placement counselors or coordinators working with small populations of handicapped individuals, is a key issue in the administration of work experience programs. The first question asked by persons unacquainted with the difficult, time consuming job of finding independent employment for the handicapped is what is the coordinator doing if he/she is in the school building for only a few hours a day?

As has been noted, the coordinator's use of materials such as the company summary sheet and the GEQ serves to organize and document activities contributing to the goal of job development. These materials concurrently fulfill accountability requirements in producing documentation for time as well as for effort spent.

William P. Hoey

SUPPORT FROM BUSINESS CONTINUES

Business support for the development of the Career Accessibility Model continued during the second year of the project, and will remain in future activities facilitated by the Institute for Career Research.

A Summary of Business Involvement

At the start of the 1977-78 school year, all of the original upper level personnel managers who participated in the generic job development in year one had indicated their desire to involve their companies in direct activities with school systems. In order to study closely the development of upper level management collaboration in work experience programs, only companies with local operations proximal to the four Massachusetts schools in the project were approached. Since S. D. Warren (Ron Partridge, Division Personnel Manager), and Woolworth's (Pat Martin, Personnel Director of Boston Store) were not conveniently accessible, these businesses were unable to participate directly in year two activities. However, employment data from these companies, which were potentially useful to instruction and guidance, were cleared for use by school personnel.

Upper level managers in all of the remaining businesses contributed to work experience programs by clearing the use of their employment data by school personnel and by taking the following steps:

Brigham's (small restaurant) - Randy Smith, Corporate Personnel Manager: Sent interstore memos to ten store managers urging cooperation with school coordinators.

Burger King (fast food) - Arthur Veves, Division Personnel Manager: Telephoned local manager in one store, visited store to meet school coordinator, and spoke directly with students.

Marriott (hotel/motel) - Ramsey Toruella, Personnel Manager: Met with school coordinator, arranged on site visits, hired students directly for jobs identified in year-one.

McDonald's (fast food) - Tony Aiello, Division Employee Relations Manager: Met with school coordinators, telephoned and visited two stores to discuss cooperation with schools.

Marshall's (retail clothing) - Neil Falby, Corporate Personnel Manager: Met with school coordinator, discussed job potential available at corporate headquarters.

Stop and Shop (retail food) - Edward Cooney, Division Manager of Employee Development: Telephoned and met with 5 store managers proximal to school systems, encouraging cooperation with school personnel.

Texaco (retail gasoline) - Houston "Top" Ingram, Public Relations Director: Contacted Division Marketing Manager requesting that marketing reps ask local station managers to cooperate with school coordinators.

Zayre's (retail discount) - George Goldberg, Corporate Personnel Manager: Asked Division Personnel Managers to support project. Ken Horne, Division Manager: Sent memo to 8 store managers urging cooperation with school personnel. Pat Himmel, Division Manager: Called two store managers.

The above mentioned business representatives have indicated an interest in pursuing further their involvement with the schools and with ICR. The planned, deliberate approach taken in this project was identified repeatedly by the participants as a key factor in their decisions to collaborate.

The Impact of Upper Level Support

Evidence of the impact of upper management involvement described above was revealed in a series of interviews conducted directly with eight local store managers at **Burger King, McDonald's, Stop and Shop,** and **Zayre's.** In every case, upper level support was identified as having influenced the manager's desire to cooperate with the local school coordinators. This information corroborated the impressions reported by the school coordinators earlier in the year (reported in Options, Volume 1, #2).

In general, job redesign principles, while they are recognized as feasible by upper level management, do not appear to have been readily applied in lower level operations where managers have not had training and experience in creating jobs for disabled persons. While some lower level managers did restructure existing work assignments, thereby creating entry level positions, most jobs which were provided for students were positions which had always been available, but had never been detailed for consideration of a handicapped employee.

A strong implication of these findings is that businesses could benefit from more formalized approaches to preparing their personnel for dealing with handicapped workers. Most of our upper level contacts agreed, and considerations of this type will be addressed more directly in the future.

In summary, the CAM project has clearly demonstrated the willingness of the business community to voluntarily collaborate with educators on new approaches to the preparation and placement of persons with special needs - those programs are thoroughly planned, well organized, and carefully implemented.

Vic Petzy

POTENTIAL USES OF EMPLOYER BASED DATA

During the months of May and June, 1978, participating work experience coordinators at the Massachusetts and New Jersey school sites were interviewed relative to the extent of use and potential for Career Accessibility Model (CAM) data and materials. The role of the coordinator was broken down into seven functional areas of activity, i.e., local job development, administration, guidance, instruction, evaluation, placement/follow-up, and parent communication. The interviews determined that CAM materials and data developed during the first year's interaction with employers were useful in accomplishing the goals of a work experience program for special needs students. Specifically, the use of company contacts and employer information, job descriptions, career development charts, the General Employability Questionnaire (GEQ), Q-Sort methodology, booklets, forms, and coded job descriptions were investigated.

Local Job Development

After one year's development and use of this data and material by Helen Brennan, King Philip Regional High School; Robert Chalmers, Newton North High School, Richard Lee, Minuteman Regional Vocational High School; Robert Stirling, Holbrook High School; William Hoey, Monmouth County New Jersey participating schools; the results of the investigation indicate that CAM materials were useful in local job development activities. These coordinators reported using company contacts, job descriptions, career development charts, and GEQ's with employers in the initial stages of job development. The materials were well received by employers and the coordinators felt very positive about the process. One manager at McDonald's scaled down several jobs in order to accommodate handicapped students, and also communicated the process to a manager who later replaced him.

Administration

CAM materials were found useful in administrative activities related to overall planning and communication. CAM materials were used with school officials and colleagues, both formally and informally in explaining the goals of a work experience program for special needs students. Helen Brennan and Richard Lee cited several instances where they used CAM materials with central office administrators, principals, placement personnel and teachers in describing these goals. William Hoey used these same materials in eleven formal presentations to various professional and community groups.

Guidance

School personnel found CAM data and materials useful in counseling and guiding students toward making appropriate decisions about jobs, given their interests and abilities. The value of the materials was demonstrated in both group and individual situations.

Robert Stirling cited a situation in which two students indicated interest in restaurant work as a result of a class discussion using CAM materials. Each was given copies of the booklet, "Work People Do in Restaurants." Subsequent discussion with each student, using job descriptions, led one to seek a position and the other to look in another area.

Helen Brennan had a student who wanted to work as a physical therapist. Ms. Brennan combined the use of CAM job descriptions for nurse aide and physical therapist aide in counseling the student, and was able to place her as a physical therapist aide at the Kennedy Center in Foxboro, Massachusetts. She enjoyed her work experience and performed at above average levels.

Instruction

In regard to direct instruction, CAM data and materials were found useful in curriculum development activities and teaching. Coordinators reported that students were able to explore personal feelings about different work settings which aided in making improved judgements relative to job selection. Students also enhanced their knowledge of employers expectations while developing improved work habits and coping skills.

Helen Brennan was informed by a participating employer that a student who was working as a gas station attendant was too slow in waiting on customers and became confused during busy hours. Using the job description for gas station attendant as a guide, Ms. Brennan set up a role playing situation in the classroom to re-create the job environment. Props were made and other students assisted in various roles. Service to customers was timed and contingencies for performing tasks during busy hours were discussed and developed. The same job description was used in the automotive shop where this same student continued to develop his skills in changing tires. As a result of this careful instruction and follow-through, this student was eventually hired full time by the same employer.

Ms. Brennan also involved students in discussions of their feelings about work settings. Students were asked to do a Q-sort before taking and after leaving, a job. Discussions focused on reasons for liking or disliking a job, and students' reactions to jobs were recorded on the coordinator's company summary sheets for future reference with other students. In addition, students were also asked to search newspapers for jobs they felt they could perform well. They discussed their perceptions about work and the ways in which they could generalize their own talents.

Evaluation

In evaluating students, CAM data and materials were found useful in the assessment process from diagnosis to placement and follow-up. Helen Brennan, Richard Lee, and Robert Chalmers reported using CAM job descriptions, booklets, and career development charts in conjunction with other materials to assess student career interests and abilities. Ms. Brennan described a boy who stated a strong desire to become a police officer, which seemed beyond his capabilities. Through the use of a CAM job description for a security guard, the student was placed in a position which incorporated some security duties. During placement, coordinators found CAM data and materials useful in creating linkages between special needs students and the business/industry community. In those companies where CAM staff had made contact with corporate officials during the first year phase, coordinators reported that local managers were receptive to hiring handicapped students. In some cases, jobs were redesigned with the cooperation of managers working with coordinators.

A combined total of 25 special needs students were placed in jobs where coordinators used CAM materials in discussions with store managers. Robert Chalmers reported 4 placements (2 in the Marriott Hotel, and 2 with Mr. Donut) where job descriptions were used in placing students as utility kitchen helpers and counter clerks. William Hoey reported 11 placements in New Jersey in which jobs were redesigned using CAM developed job descriptions in conjunction with other materials.

Parent Communication

In contacts with parents school personnel found CAM data and materials useful in building stronger communication links with parents of special needs students. Two-way sharing of information about the student was facilitated as well as an understanding of program goals.

William Hoey used CAM materials with parents who were on Child Study Teams, (which are analogous to Core Evaluation Teams in Massachusetts). Helen Brennan used CAM materials in personal contacts with parents, and Robert Stirling presented CAM materials in a meeting of parents of special needs students.

These are but a few of the examples of use of the CAM materials cited by coordinators. It seems reasonable to suggest that the Career Accessibility Model for Special Needs Students provides valuable information and materials. CAM further holds a great deal of potential to aid in the development of a success oriented work experience program for special needs students in both the public and private school communities.

Dick Etter

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THE CAREER ACCESSIBILITY MODEL – USOE GRANT NO. G00705047

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APPENDIX N

1978 CEC Presentation

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617-826-8361

AGENDA

Title: A Career Accessibility Model for Special Needs Individuals

Place: CEC Annual Convention - 1978 - Kansas City, Missouri

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Presenters:

John O. Post, Jr., Ed.D. President Institute for Career Research	Vic J. Petzy, Ph.D. Project Manager Career Accessibility Model
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Program:

I.	Statement of the Problem	J. Post
II.	Detailed Presentation of the Methodology	V. Petzy
III.	A Report on Implementation	R. Etter W. Hoey
IV.	Panel Responding to Issues from the Audience	Presenters and Participants

PRESENTATION SUMMARY

A Career Accessibility Model for Special Needs Individuals

56th Annual Convention of the
Council for Exceptional Children
May 5, 1978
Kansas City, Missouri

Presentation
by

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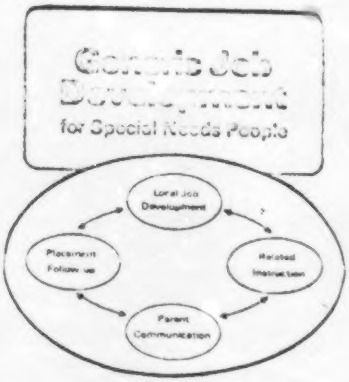
The Career Accessibility Model (CAM) is a two year developmental research project funded under a field initiated studies grant # G0070547 from the Bureau of Education for the Handicapped, USOE.

Project Officer, Mr. Melville J. Appell


Generic Job Development
for Special Needs People
Local Job Development
Related Instruction
Parent Communication
Placement Follow up

CAREER ACCESSIBILITY MODEL

INTRODUCTION AND STATEMENT OF THE PROBLEM

Background

- Our work in task analysis showed us that specific job breakdowns were useful communications tools with employers.
- Our experience in cooperative education proved that the work environment was also an excellent teaching environment.
- Our work with the handicapped and disadvantaged in vocational programming pointed out the need for effective career preparation through a more direct link between work and education.
- Our work with employers and handicapped persons brought us to the realization that more career opportunities were needed if the handicapped were to reach a broader potential in the work place.

The Problem

- Could career opportunities for handicapped persons be developed in a systematic way ?
- Would the information produced by such a process impact on the school's efforts in career education for the handicapped ?

Goals

- To develop and implement a systematic job development process in 10 companies with national markets in the marketing and distribution cluster.

  Target companies:

  Brigham's

  Burger King

  Marriott Motor Hotels

  Marshall's

  McDonald's

  Stop and Shop

  Texaco, Inc.

  S.D. Warren Division
  Scott Paper Company

  F.W.Woolworth

  Zayre Corporation

Goals (continued)

- To pilot test the utilization of job development information with EMR populations in a variety of school settings in Massachusetts and New Jersey.

  Target schools:

  Suburban/Small Town Comprehensive High School
  Holbrook High School, Holbrook, Massachusetts

  Large Rural/Suburban Regional Comprehensive High School
  King Philip Regional School, Wrentham, Massachusetts

  Large Vocational/Technical High School
  Minuteman Regional, Lexington, Massachusetts

  Large Urban/Suburban Comprehensive High School
  Newton North High School, Newton, Massachusetts

  Shared Time Vocational Technical High Schools
  Union County Vocational-Technical School,
  Scotch Plains, New Jersey
  Monmouth County Vocational School,
  Freehold, New Jersey

The Model

- Generic job development impact identifies and creates a listing of tasks, social employability skills, a career chart, and a company summary - together this data constitute a job option for a handicapped person.
- Local job development utilizes that information to create opportunities at the local level through employer/educator communication.
- The instructional component uses the information to prepare student in a student centered curriculum.
- Parents are brought into the picture for the purpose of assisting school personnel with a realistic career development environment.
- Placement and follow-up links the school's efforts back to the employer through the student.

Effects

- * Jobs are molded to the individual.

- * Specific information is channeled from the work environment back into the school program.

- * Companies and schools are brought together in a common objective.

- * Handicapped persons develop more satisfying careers.

Assumptions

- * People with special needs represent a wealth of human potential which has yet to be fully developed.

- * The attitudes of American society (as measured by the Rehabilitation Act of 1973, Public Law 94-142, Massachusetts Chapter 766 and numerous formal policies of large companies such as Howard Johnson's) are becoming favorable toward providing assistance to citizens with special needs.

- * Businesses and education share common interests, if different goals, in developing human resources to their fullest.

- * Cooperative education programs provide supportive transitions into the world of work for persons with special needs.

- * The Career Accessibility Model (CAM) will provide a dynamic process by which (1) relevant employment data can be generated continuously into the school curriculum and (2) special needs students can be prepared for and placed in the world of work.

Program

- * A process model was built.

- * 38 job options were identified or created.

- * We are currently involved in pilot testing utilization.

METHODOLOGY

Major Goals of the Project

- * To develop a job redesign approach which would facilitate the identification and creation of employment possibilities for special needs persons.
- * To develop relevant employment data for use in career preparation, guidance, and placement of special needs persons.

Reason for Funding by Government

- * A response to occupational needs of handicapped workers.
- * For increased access to world of work.
- * For improved quality of employment options.
- * For better occupational adjustment.

Several Concepts Run Through the Project Work

- * This research impacts on employers and work itself.
- * The company interaction is initially aimed at upper level managers to gain organization support.

  #### Key Contact

  - * A person in company responsible for personnel.
  - * High enough in organization to assume responsibility.
  - * Close enough to operations to know details of work environment and work itself.
- * The process may be applied in any employment setting, private or public.
- * The concepts of job redesign derive from business management theories of job enrichment.
  - * Job redesign approach: Fitting organization to people.

- (+) View of workers growth needs which if met will benefit organization.
- Planned systematic approach involving detailed analysis of worker needs and abilities in regard to social/technical aspects of the organization.
- Existent jobs are broken down into their component responsibilities and tasks and then are reconstituted to fit needs of worker.
- Considering needs of organization and needs of personnel, jobs may be reconstituted in original form, or parts of a job may be accepted alone or in combination with parts of another job.

- Employment Information can be used for a broad range of special needs persons.
    - Educable mentally retarded

      Profile

      Low cognitive functioning, slow learner general difficulties in social adaption.

      With training, guidance, supervision - and suitable job option.

      High potential as capable, productive worker - low absenteeism, low turnover.

- Data generated from world of work can be utilized in a broad range of programs.

Project Activities Applicable to Programs in Schools

- Rehabilitation Agencies
- CETA
- Businesses

Generic Job Development Information May Be Viewed in Regard to the Interrelationship of Roles, Purposes, and Data for Various Programs

Generic Job Development for Special Needs Persons

- Consists of 2 to 3 sessions with employers.
- Can be viewed in five phases

Phase I: Articulate project goals with company needs. A discussion of general issues.

- For background of project.
- Methodology of project.
- Company policies and operations.

Phase II: Delineate present work setting. Detailed analysis of work requirements

- Specific operations data.
- Specific job descriptions.
- Occupational adjustment data.

Phase III: Employment possibilities for special needs persons. Analysis of special education capabilities and company work requirements.

- Specifications of capabilities.
- Comparison of capabilities/requirements.
- Job redesign/alternatives.

Phase IV: Gain employer acceptance of employment possibilities. Joint analysis of work setting variables.

- Discussion of job developers alternatives.
- Employer inputs.
- Agreement on feasibility of jobs.

Phase V: Prepare data for use,
Refinement of employer information .

- Summary and organization of data.
- Expert review of data.
- Acquisition of employer commitments.

IMPLEMENTATION

* Materials developed during generic job development phase were shared with cooperative education coordinators.

- Company contacts.
- Employer data.
- Job descriptions.
- Career development charts.
- Social employability factors from General Employability Questionnaire.
- Staff developed materials.
    - Q-sort technique.
    - Two booklets.
    - Student summary sheets.
    - Company summary sheets.
    - Coded job descriptions.

* This information and data was then used to articulate with goals of a work experience program.

Purposes:

- Job development.
- Placement/follow-up.
- Guidance.
- Related instruction.
- Assessment.
- Parent communication.

- Company contacts developed during generic job development phase impacted on local job development, placement/follow-up activities.

- Job descriptions identified and codified during generic job development influenced work in local job development instruction, placement/follow-up, assessment and guidance.

- Career development charts were used in instruction, guidance, placement/follow-up and parent communication.

- Social employability factors from General Employability Questionnaire data assisted in local job development and provided the basis for development of the Q-sort technique.

- Parents and teachers have different perceptions of children. A Q-sort methodology was developed and used in developing parent communications by comparing teacher/parent perceptions. It has also shown demonstrated usefulness in:

  Student to teacher communications.

  Teacher to teacher communications.

  Resource teacher to mainstream teacher communications.

  Teacher to coordinator communications.

  Coordinator to student communications.

  Coordinator to parent communications.

  It has potential in many other areas.

- Two booklets "Work People Do in Restaurants" and "Work People Do in Retail Stores" developed from the data were used frequently in conjunction to regular class texts.

- Company summary sheets were necessary for local job development.

- Local job development is a full-time position.

- Each company must be researched.

- Contact the person with the authority to redesign and hire.

- Some schools are better organized for implementation of the CAM process.

APPENDIX O

Samples of New Job Options

Marketing and Distribution
Food Subcluster
Brigham's

Waiter and Waitress

Duties and Responsibilities

01 Maintains Good Customer Relations

1. Receives customers
2. Observes customer needs
3. Communicates effectively with customer

02 Takes Orders for Food and Beverages

1. Presents menu to patrons
2. Presents order to cook

03 Serves Food and Beverages

1. Serves ice water
2. Serves non-alcoholic beverages
3. Serves food from kitchen

04 Performs Other Serving Duties

1. Prepares counter food
2. Wraps leftovers
3. Prepares take-out orders

05 Prepares Checks and Receives Payment

1. Accepts payment

06 Maintains Necessary Supplies to Serve Meals

1. Sets table

2. Maintains a well-supplied station

3. Maintains counter supplies

07 Performs Clean-Up Duties

1. Cleans throughout day as required

2. Clears after customer departure

3. Cleans before closing

4. Performs monthly cleaning duties

5. Performs other duties

Marketing and Distribution
Retail Department Store Subcluster
Marshall's

Mail Room Clerk

Duties and Responsibilities

1. Postaging and sorting of mail
2. Packaging of mail
3. Metering mail
4. Runs errands to bank, post office, etc.
5. Receives in-coming supplies
6. Microfilming, office machines - Multilith Press, TWX teletype, copying machine
7. Delivers mail to departments

Marketing and Distribution
Food Subcluster
McDonald's

Counter Person

Duties and Responsibilities

01 Maintains Good Customer Relations

1. Receives customers
2. Observes customer needs
3. Communicates effectively with customer

02 Takes Orders for Food and Beverages

1. Takes beverage order

03 Serves Food and Beverages

1. Serves non-alcoholic beverages
2. Serves food from kitchen
3. Prepares counterfood

04 Performs Other Serving Duties

1. Prepares take-out orders
2. Prepares specially requested orders not on menu

05 Maintains Necessary Supplies to Serve Meals

1. Sets table
2. Maintains a well-supplied station
3. Maintains counter supplies

06 Performs Clean-Up Duties in Service Area

1. Cleans throughout day upon request

2. Clears after customer departure
3. Cleans before closing
4. Performs monthly cleaning duties

07 Waits on Customers Under Rush Hour Conditions

1. Performs other duties as required

Marketing and Distribution
Retail Department Store Subcluster
Woolworth's

Assistant Window
Trimmer

Duties and Responsibilities

01 Prepares Window Display Space and Materials for Display Installation

1. Removes merchandise from previous display from window display area

2. Removes mannequins, forms, fixtures and props from window display area

3. Performs general cleaning duties in emptied window display area

4. Obtains merchandise to be displayed from stockroom or indicated departments

02 Prepares Display Space and Materials for Display Installation

1. Arranges garments or other merchandise on forms, mannequins and fixtures

2. Inspects assembled display materials for proper operation and condition

3. Prepares show cards for use in window display

Marketing and Distribution
Retail Department Store Subcluster
Zayre

Customer Service Desk
Attendant

Duties and Responsibilities

01 Maintains an Information Service Desk

1. Gives directions/information to customers
2. Answers telephone (at service desk)
3. Supervises store telephone switchboard

02 Performs Store Services for Customers

1. Handles refunds, exchanges and customer complaints
2. Handles layaways
3. Provides a package checking service for customers

03 Carries Out Miscellaneous Clerical Duties

1. Performs clerical duties and types
2. Performs accounting functions
3. Provides assistance to cashiers on floor
4. Performs mailing functions